Farm Machinery

Custom and Rental Rate Guide 2000

Saskatchewan
Agriculture
and Food

Farm Machinery
Custom and Rental
Rate Guide
2000

Table of Contents

	Page
Introduction	iv
How to use the Custom and Rental Rate Guide	vii
Classification of Air Drills, Air Seeders and Zero Till Drills	viii
Summary of Average Calculated Custom Rates	ix
Year 2000 Average Calculated Custom Rates	x
Powered Equipment	
Bale Wagons, Self-Propelled	1
Combines, Self-Propelled Conventional	1
Combines, Self-Propelled Rotary	1
Grain Augers with Motor	2
Sprayers, High Clearance	2
Swathers, Self-Propelled	2
Tractors, 2 Wheel Drive	3
Tractors, 4 Wheel Drive	4
Trucks, Grain	5
Trucks, Pickup	5
Drawn Equipment - Grain	
Air Disk Drills, Zero Till	6
Air Hoe Drills, Zero Till	6
Side Banding Zero Till Air Seeders with Individual Gauge Packers	6
Air Seeders, Minimum Till	7
Air Seeders, Zero Till	7
Anhydrous Ammonia Applicators	8
Combines, Pull Type	8
Cultivators, Field	8
Cultivators, Heavy Duty	9
Cultivators, Wide Blade	10
Discers with Seed & Fertilizer Attachments	10
Disks, Heavy Breaking	10
Disks, Heavy Tandem	11
Drills, Disk Press	11
Drills, Hoe Press	12
Drills, Zero Till Gravity Disk	12
Drills, Zero Till Gravity Hoe	12

	Page
Fertilizer Spreaders	13
Grain Augers with PTO	13
Grain Dryers, Batch	13
Grain Dryers, Continuous	13
Grain Vacs	13
Granular Herbicide Applicators: Cultivator Mount & Trailer Type	13
Harrows, Standard 5 Bar Tine	14
Harrows, Heavy	14
Harrow Packers	14
Land Rollers	15
Plows	15
Rock Pickers	15
Rock Rakes	15
Rock Picker, Rock Rake Combinations	15
Rodweeders	16
Rodweeders, with Multiplex or Vibratiller	16
Sprayers, Pull Type	17
Sprayers, Truck Mount	17
Swathers, Pull Type	17
Swath Roller	17
Drawn Equipment - Livestock and Forage	
Bale Movers, Large Round	18
Bale Processors	18
Balers, Large Round	18
Balers, Standard	18
Bale Wagons, Pull Type	18
Forage Harvesters, Pull Type	19
Grinder Mixers	19
Hay Rakes	19
Manure Spreaders	20
Manure Spreaders, Liquid	20
Mower Conditioners (Haybines)	20
Mowers, Sickle	21
Post Pounders	21
Rotary Cutters	21
Trailers, Livestock	21
Tub Grinders	21
Drawn Equipment - Miscellaneous	
Front End Loaders	22
Scrapers	22
Snow Blowers	22

Page

Appendix A
Custom Grain Hauling, Farm to Market 23
Custom Grain Hauling, Seed to the Field 23
Custom Grain Hauling, Field to Yard 24
Custom Large Round Bale Hauling, Field to Yard 25
Custom Water Hauling for Field Spraying 25
Custom High Clearance Sprayer Transportation Costs 26

Appendix B
Combine Classification 27

Appendix C
Rental Rate Calculation Worksheet 28

Appendix D
Custom Rate Calculation Worksheet 29

Appendix E
Formulas Used in Calculations 30

Appendix F
Machinery Cost Calculation Guide 31

Appendix G
Factors to Consider When Custom Hiring 35

Sample Custom Farming Agreement 36

INTRODUCTION

This publication gives detailed information regarding guidelines for machine ownership, operating costs, custom rates and rental rates for farm machinery. **This information is provided as a guideline and should be interpreted and adjusted for individual situations.**

The costs calculated in this publication use the list price less a discount to arrive at an average selling price of a new machine. Machine companies may reduce the actual selling price of the machinery below their suggested retail prices.

The intent of this publication is to estimate both the ownership (fixed) and operating (variable) costs of owning machinery.

The farmer who has already invested in a machine for his own use may be in a position to do custom work for a neighbour for the suggested custom rate less some portion of the investment cost and still realize a return. A farmer doing work for a neighbour would need to charge at least enough to cover the operating (variable) costs of the equipment and an amount to cover labour costs.

There may be individuals who have a custom farming business. In this instance all costs that are calculated must be included plus overhead costs (transportation, liability insurance, utility costs, advertising, shop equipment). Custom operators should determine these overhead costs before establishing their rates.

Assumptions

1. Interest on Investment is calculated at 7.5% and assumes machinery investment is 50% owned, and 50% borrowed. The interest rate is calculated by averaging the five year term deposit rate, with the five year machinery loan interest rate.

2. Diesel fuel is charged at $0.61 per litre, gasoline is charged at $0.65 per litre. **The 7% GST was deducted in calculating the gasoline and diesel prices because custom operators and farmers can apply for an input tax credit on these items.** At the time of printing, farmers are eligible for a $.15/litre Saskatchewan tax rebate on diesel fuel and gasoline used in the farming operation. Farmers doing custom work for a neighbour would have lower fuel costs than those calculated in this publication and could therefore charge a lower custom rate. Oil and grease is charged at $0.35 per hour for each 100 hp.

3. Labour is charged at $9.00 per hour.

4. Propane is charged at $0.37 per litre.

The first section of this publication is a summary of selected custom farming operations and the custom rate for each operation. The following pages contain detailed calculations that were used to arrive at the rental or custom rate for specific farm equipment. This detailed information is provided in a table format that includes:

1. machine costs per hour,
2. machine rental per hour, and
3. custom work rates.

Machine Cost Per Hour Table

The basis for calculating the machine cost data is the cost of new equipment. This information was collected in January 2000 using the most current equipment pricing guides of the major equipment manufacturers and various shortline manufacturers. The manufacturers suggested retail price was discounted 10% on machines valued up to $50,000, 15% for machines valued between $50,000 and $100,000 and 18% for machines valued over $100,000.

The machine cost data is given for a wide variety of farm equipment under different ranges of annual hours of use. The data is specific to each individual machine and includes fixed costs (depreciation, investment cost, insurance and housing) and variable costs (repairs, fuel, oil and grease). The total cost per hour figure is the total cost of owning and operating that particular machine.

Machine Rental Per Hour Table

The rental rates section deals specifically with renting equipment for short time periods. The rates are not designed as lease rates. The rates should not be used for long term or seasonal lease arrangements.

Rental rates are calculated by adding the fixed costs (ownership costs) and repair costs to arrive at the basic rental costs. The margin is calculated by multiplying the basic rental costs by 15%. The margin is added to cover risk, profit and management. The rental rates include an allowance for repair only. The renter is responsible for fuel and lubrication. No account is made to cover neglect by the renter. In the case of neglect, a settlement between the parties involved must be negotiated.

The rental rate is the total of the basic rental costs and the 15% margin. The rental rates are specific to each machine. If a complement (tractor and machine) is rented, the rental rate would be the total of the two machine rental rates.

The average rental rate is listed in each category of machines as a guide, and is calculated using the average rental rate for the middle number of hours of use.

Custom Work Rates Table

The custom work rates section deals specifically with rates for custom work including both the machine(s) and operator. The basic custom work costs are calculated by summing the total costs of the power unit (if applicable), machine, and the labour allowance per hour. A margin to cover risk, profit, management and an incentive for the operator is calculated by multiplying the basic custom work rates by 15%. The custom rate is then determined by adding the basic custom work rate and the margin. In all cases a basic labour rate of $9.00 per hour is used. The average custom rate is calculated for the middle number of hours of use for all machines except combines where the high number of hours are used.

In the case of drawn equipment, a power unit suitable to that drawn machine has been selected and the total cost of both the power unit and the drawn machine have been added together to arrive at an overall total cost for that operation.

The information provided in all three segments of the table are based on average conditions and should be used as guides only.

Additional points to consider when negotiating a custom work agreement are outlined in Appendix G, along with a sample of a custom farming agreement.

An additional aid in calculating custom rates is Alberta Agriculture's Farm Machinery Cost Calculator. It is available on their website at: **http://www.agric.gov.ab.ca**

This publication has been prepared by Mike Scott, P. Ag., of the Economics and Farm Management Section, Sustainable Production Branch, of Saskatchewan Agriculture and Food. Contributions of the many people that assisted with the compiling and reviewing of this publication are acknowledged.

This information is on Saskatchewan Agriculture and Food's website along with most other publications that are produced by Saskatchewan Agriculture and Food.

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A. How To Use This Publication

1. Use the table of contents to locate the machine. Equipment is divided into the following sections a. Powered Equipment, b. Drawn Equipment - Grain, c. Drawn Equipment - Livestock and Forage, d. Drawn Equipment - Miscellaneous. Equipment is listed alphabetically within each section.

2. Locate the size of machine to be used and the number of hours of annual use (if you are unsure of the annual hours of work, use the middle rate). The rental rate per hour and custom rate are calculated for each amount of usage.

3. **Calculating a custom rate for used equipment**
If you require a custom rate for used equipment or for a number of hours not included in this publication, you can calculate your own custom rate using the blank worksheet in appendix D. If the machine is not listed in this publication, use the cost formulas from appendix F, for a similar machine. The blank worksheet in appendix D can also be used to calculate a custom rate using a different number of annual hours of use. If your machine has a lower value than the one in this publication you can use the lower value to calculate the machines investment cost, however, you should use the original cash cost to calculate repair costs. Using a value less than the original cash cost will underestimate repair costs.

4. Some operations such as seeding, fertilizing or spraying require the use of a truck to haul seed, fertilizer or water to the field. The cost of the truck has not been included in the spraying or fertilizing custom rates. For an example of calculating truck usage see Appendix A.

5. Power units have been matched with drawn implements for average working conditions. Some soils may require a larger power unit than the one required for average conditions. Some operations, in certain conditions, could be performed using a smaller power unit than the one used in this publication.

6. This publication uses the cost approach of calculating custom rates. The cost approach may differ from the custom rate normally charged by custom operators for some operations. **In reality the forces of demand and supply will determine the custom rates charged by custom operators.**

7. Mathematical rounding of some of the calculations may cause an error of one or two cents. The calculated custom rate is the correct figure.

B. Classification of Air Drills, Air Seeders and Zero Till Drills

There are several types of air seeding and zero till seeding tools. This classification should help to remove uncertainty as to which category air seeders and zero till seeders fit into. The following classification for air drills, air seeders and zero till gravity drills has been developed with the assistance of PAMI.

Air Disk Drills, Zero Till

- integral on row packer wheels are incorporated in the design that supports the rear 1/2 of the drill,
- an air system is used to deliver the seed and fertilizer,
- high clearance,
- heavy duty trips,
- generally used to seed into untilled soil,
- speed used in work rate calculation of approximately 4.5 mph.
- also includes side banding air disk drills with gauge packers.

Air Hoe Drills, Zero Till **OR** Side Banding Zero Till Air Seeders with Individual Gauge Packers

- integral on row packer wheels are incorporated in the design that supports the rear 1/2 of the air hoe drill,
- includes side banding air hoe drills with individual gauge packers,
- an air system is used to deliver the seed and fertilizer,
- high clearance,
- heavy duty trips (400lbs+),
- generally used to seed into untilled soil,
- speed used in work rate calculation of approximately 4.5 mph.

Air Seeders, Minimum Till

- a cultivator type tillage tool, with in frame wheels, equipped with sweep type openers using an air system to deliver the seed and fertilizer,
- no on row packer wheels,
- typically followed by a harrow packer,
- speed used in work rate calculation of approximately 5.5 mph.

Air Seeder, Zero Till

- a cultivator type tillage tool, with in frame wheels, using an air system to deliver the seed and fertilizer,
- capable of seeding directly into untilled soil using narrow openers to minimize soil disturbance,
- on row rear mounted packer wheels,
- include minimum tillage air seeders modified for zero tillage seeding,
- speed used in work rate calculation of approximately 4.5 mph

Drills, Zero Till Gravity Disk

- capable of seeding directly into untilled soil using narrow openers to minimize soil disturbance,
- a gravity system is used to deliver the seed and fertilizer,
- has on row packer wheels,
- may be single or double shoot system,
- speed used in work rate calculation of approximately 4.5 mph.

Drills, Zero Till Gravity Hoe

- capable of seeding directly into untilled soil using narrow openers to minimize soil disturbance,
- a gravity system is used to deliver the seed and fertilizer,
- has on row packer wheels,
- single shoot system,
- speed used in work rate calculation of approximately 4.5 mph.

C. Summary of the Average Calculated Custom Rates

The following list is a summary of selected custom farming operations and their calculated custom rates. These are calculated rates only and may require adjustment for individual situations. The average calculated custom rates for combines is the average of conventional S.P., and rotary S.P. combines. The average calculated custom rate is the average of the custom rates for each size of a particular machine for the middle number of hours of annual usage. The only exception is combines where the high number of hours of annual usage is averaged, to reflect the large number of acres covered by custom combiners. Detailed steps of how the rental and custom rates were calculated can be found in the preceding pages.

Year 2000 Average Calculated Custom Rates

	Average Custom Rate
Powered Equipment	
Bale Wagons SP	$ 0.62/bale
Combines * (trucking not incl.)	19.33/ac
Grain Augers (7", 38-45ft)	11.99/hr
Sprayers SP (additional costs included)	2.41/ac
Swathers SP	12.36/ac
Tractors 2WD (30-69 hp)	.49-.62/PTO hp/hr
(70-180+ hp)	.45-.50/PTO hp/hr
Tractors 4WD (100-130 hp)	$.53-.55/PTO hp/hr
(250-400+ hp)	.27-.31/PTO hp/hr
Trucks pick-up 1/2 ton	41.11/hr
Trucks pick-up 3/4 ton	45.29/hr
Trucks grain 1 ton	67.42/hr
Trucks grain 3 ton	100.62/hr
Trucks grain 4 ton	131.18/hr

Drawn Equipment - Grain	
Air Disk Drills, Zero Till	13.26/ac
Air Hoe Drills, Zero Till	10.93/ac
Air Seeders, Minimum Till	9.55/ac
Air Seeders, Zero Till	12.43/ac
Anhydrous Ammonia Applicators	6.21/ac
Combines. PTO	18.95/ac
Cultivators, Field	4.52/ac
Cultivators, Heavy Duty	5.13/ac
Cultivators, Wide Blade	6.29/ac
Discers w/S.A., F.A.	7.46/ac
Disks, Heavy Breaking	16.77/ac
Disks, Heavy Tandem	7.78/ac
Drills, Disk Press	9.70/ac
Drills, Hoe Press	10.78/ac
Drills, Zero Till Gravity Disk	15.57/ac
Drills, Zero Till Gravity Hoe	11.34/ac
Fertilizer Spreaders	2.75/ac
Grain Augers PTO (8", 40-51 ft)	$.0105/bu
Grain Augers PTO (10", 50-60 ft)	.0079/bu
Grain Dryers, Batch (each % dried)	.15/bu
Grain Dryers, Continuous (each % dried) 300 bu	.12/bu
Grain Dryers, Continuous (each % dried) 600 bu	.08/bu
Grain Vacs	.03/bu
Granular Herbicide Applicators- Cult. Mount	.53/ac
Granular Herbicide Applicators- Trailer Type	1.58/ac
Harrows, Standard 5 Bar Tine	2.41/ac
Harrows, Heavy	1.80/ac
Harrow Packers	3.72/ac
Land Rollers	4.07/ac
Plows	19.10/ac
Rock Pickers, 3 Paddle Hydraulic	64.96/hr
Rock Pickers, Extra Large	74.28/hr
Rock Rakes	59.81/hr
Rock Pickers-Rock Rakes 20-22 ft hyd	101.97/hr
Rodweeders	3.96/ac
Sprayers, PTO (hauling water incl.)	3.57/ac
Swathers, Single Swath	5.25/ac
Swath Rollers	.10/ac

Drawn Equipment - Livestock and Forage	
Bale Movers, 7-8 Bales	$ 57.48/hr
Bale Movers, 12-14 Bales	92.22/hr
Bale Processors	76.91/hr
Balers, Large Round 5'x6'(twine incl)	11.14/bale
Balers, Standard, 14"x18" (twine incl)	.49/bale
Bale Wagons, PTO	.54/bale
Forage Harvesters, Medium	134.61/hr
Grinder Mixer, 120-150 bu	73.45/hr
Hay Rake, 15 ft wheel	4.77/ac
Manure Spreaders 140-199 cu ft	55.85/hr
Manure Spreaders, Liquid 1300-1899 gal	58.81/hr
Mower Conditioners	$ 15.01/ac
Mowers, Sickle, 9 ft	8.66/ac
Post Pounders	35.61/hr
Rotary Cutter, 10 ft	57.70/hr
Trailers, Livestock, 16 ft Bumper	52.68/hr
Tub Grinder, 8 T	85.30/hr
Front-end Loaders, 70-140 hp	56.12/hr
Scraper, 5.5-6.5 yd	98.73/hr
Snow Blowers, 8 ft Front Mount	100.07/hr
Snow Blowers, 8 ft Rear Mount	47.49/hr

Custom Trucking

Custom Rate from farm to market is $0.11/bu. for the first 3 miles plus $0.01/bu. for each additional mile.

* Custom Rate from field to yard hauling from one combine is $0.13/bu. for the first mile plus $0.01/bu. for each additional mile.

POWERED EQUIPMENT

				MACHINE COMPONENT COSTS PER HOUR						MACHINE RENTAL PER HOUR			CUSTOM WORK RATES				
MACHINE SIZE	ORIG. COST	ANN. HOURS OF USE	FUEL TYPE AND LITRE /HOUR	FIXED COST $/HR.	REPAIR COST $/HR.	FUEL COST $/HR.	LUBE & OIL COST /HR.	TOTAL PER HR. COST NO LABOUR $/HR.	LAB. COST $/HR.	BASIC RENTAL COSTS $/HR.	MARGIN $/HR.	RENTAL RATE $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC CUST RATE
BALE WAGONS SP																	$/BAL
160 BALE	137600	60	18	235.48	27.52	11.70	0.35	275.05		263.00	39.45	302.45	284.05	42.61	326.65		0.
(100 HP)		100	(G)	153.08	27.52	11.70	0.35	192.65	9.00	180.60	27.09	207.69	201.65	30.25	231.90	375	0.
		140		118.42	27.52	11.70	0.35	157.99		145.94	21.89	167.83	166.99	25.05	192.03	BL/HR	0.
								Average Rental Rate per Bale				0.55	Average Custom Rate per Bale				0.
COMBINES SP CONVENTIONAL W/PICKUP																	$/AC
SMALL	169800	120	25	170.48	36.22	15.25	0.67	222.62		206.70	31.01	237.71	231.62	34.74	266.36		33.
190 HP		150	(D)	142.92	36.22	15.25	0.67	195.05	9.00	179.14	26.87	206.01	204.05	30.61	234.66	8.0	29.
		180		125.53	36.22	15.25	0.67	177.67		161.75	24.26	186.01	186.67	28.00	214.67	AC/HR	26.
		350		76.23	36.22	15.25	0.67	128.37		112.46	16.87	129.32	137.37	20.61	157.98		19.
MEDIUM	195600	120	34	196.38	41.73	20.74	0.86	259.71		238.11	35.72	273.83	268.71	40.31	309.02		32.
245 HP		150	(D)	164.63	41.73	20.74	0.86	227.96	9.00	206.36	30.95	237.31	236.96	35.54	272.50	9.5	28.
		180		144.60	41.73	20.74	0.86	207.93		186.33	27.95	214.28	216.93	32.54	249.47	AC/HR	26.
		350		87.81	41.73	20.74	0.86	151.14		129.54	19.43	148.97	160.14	24.02	184.16		19.
LARGE	221700	120	40	222.59	47.30	24.40	0.98	295.26		269.88	40.48	310.37	304.26	45.64	349.90		30.
280 HP		150	(D)	186.60	47.30	24.40	0.98	259.27	9.00	233.89	35.08	268.98	268.27	40.24	308.51	11.5	26.
		180		163.90	47.30	24.40	0.98	236.57		211.19	31.68	242.87	245.57	36.84	282.41	AC/HR	24.
		350		99.53	47.30	24.40	0.98	172.21		146.83	22.02	168.85	181.21	27.18	208.39		18.
								Average Rental Rate per Acre				15.51	Average Custom Rate per Acre				19.
COMBINES SP ROTARY W/PICKUP																	$/AC
SMALL	169600	120	29	170.28	36.18	17.69	0.70	224.85		206.46	30.97	237.43	233.85	35.08	268.93		33.
200 HP		150	(D)	142.75	36.18	17.69	0.70	197.32	9.00	178.93	26.84	205.77	206.32	30.95	237.27	8.0	29.
		180		125.38	36.18	17.69	0.70	179.95		161.56	24.23	185.80	188.95	28.34	217.29	AC/HR	27.
		350		76.14	36.18	17.69	0.70	130.71		112.32	16.85	129.17	139.71	20.96	160.67		20.
MEDIUM	204000	120	35	204.82	43.52	21.35	0.88	270.56		248.34	37.25	285.59	279.56	41.93	321.50		33.
250 HP		150	(D)	171.70	43.52	21.35	0.88	237.45	9.00	215.22	32.28	247.50	246.45	36.97	283.41	9.5	29.
		180		150.81	43.52	21.35	0.88	216.56		194.33	29.15	223.48	225.56	33.83	259.39	AC/HR	27.
		350		91.59	43.52	21.35	0.88	157.33		135.11	20.27	155.37	166.33	24.95	191.28		20.
LARGE	226000	120	42	226.91	48.21	25.62	1.05	301.79		275.12	41.27	316.39	310.79	46.62	357.41		31.
300 HP		150	(D)	190.22	48.21	25.62	1.05	265.10	9.00	238.43	35.76	274.19	274.10	41.12	315.22	11.5	27.
		180		167.07	48.21	25.62	1.05	241.96		215.29	32.29	247.58	250.96	37.64	288.60	AC/HR	25.
		350		101.46	48.21	25.62	1.05	176.35		149.68	22.45	172.13	185.35	27.80	213.15		18.
								Average Rental Rate per Acre				15.82	Average Custom Rate per Acre				19.

Straight Combining Adjustments *

Standard Straight Cut Header

For a 20 ft. straight cut header add **$3.64/Hr.** to the combine custom rate per hour and divide by the workrate in acres per hour to calculate the custom rate per acre. Add **$0.46/ac** at 8 ac/hr.
For a 25 ft. straight cut header add **$5.28/Hr.** to the combine custom rate per hour and divide by the workrate in acres per hour to calculate the custom rate per acre. Add **$0.56/ac** at 9.5 ac/hr.
For a 30 ft. straight cut header add **$7.14/Hr.** to the combine custom rate per hour and divide by the workrate in acres per hour to calculate the custom rate per acre. Add **$0.62/ac** at 11.5 ac/hr.

Flex Header and Pickup Reels

For a 20 ft. straight cut header add **$7.88/Hr.** to the combine custom rate per hour and divide by the workrate in acres per hour to calculate the custom rate per acre. Add **$.99/ac** at 8 ac/hr.
For a 25 ft. straight cut header add **$10.26/Hr.** to the combine custom rate per hour and divide by the workrate in acres per hour to calculate the custom rate per acre. Add **$1.08/ac** at 9.5 ac/hr
For a 30 ft. straight cut header add **$13.09/Hr.** to the combine custom rate per hour and divide by the workrate in acres per hour to calculate the custom rate per acre. Add **$1.14/ac** at 11.5 ac/hr.

* Add the straight combining adjustments to the SP combine with pickup custom rate.

POWERED EQUIPMENT

MACHINE SIZE	ORIG. COST	ANN. HOURS OF USE	FUEL TYPE AND LITRE /HOUR	MACHINE COMPONENT COSTS PER HOUR: FIXED COST $/HR.	REPAIR COST $/HR.	FUEL COST $/HR.	LUBE & OIL COST /HR.	TOTAL PER HR. COST NO LABOUR $/HR.	LAB. COST $/HR.	MACHINE RENTAL PER HOUR: BASIC RENTAL COSTS $/HR.	MARGIN $/HR.	RENTAL RATE $/HR.	CUSTOM WORK RATES: BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
GRAIN AUGERS										SEE							
7 IN.	3600	25	1	14.58	1.44	0.65	0.06	16.73									
30-37 FT		50	(G)	8.01	1.44	0.65	0.06	10.16		GRAIN							
(W/16 HP)		75		5.78	1.44	0.65	0.06	7.93									
										HAULING							
7 IN.	4200	25	1.4	17.01	1.68	0.91	0.06	19.66									
38-45 FT		50	(G)	9.35	1.68	0.91	0.06	11.99		SECTION							
(W/18 HP)		75		6.75	1.68	0.91	0.06	9.39									
SPRAYER, HIGH CLEARANCE																	
60 FOOT BOOM																	
110 HP		200		44.61	7.24	9.15	0.39	61.39		51.86	7.78	59.63	70.39	10.56	80.95		1.47
		300		33.08	7.24	9.15	0.39	49.85		40.32	6.05	46.37	58.85	8.83	67.68		1.23
	86900	400	15	26.78	7.24	9.15	0.39	43.55		34.02	5.10	39.12	52.55	7.88	60.44		1.10
		600	(D)	18.76	7.24	9.15	0.39	35.53	9.00	26.00	3.90	29.90	44.53	6.68	51.21	55.0	0.93
		800		15.34	7.24	9.15	0.39	32.12		22.58	3.39	25.97	41.12	6.17	47.29	AC/HR	0.86
80 FOOT BOOM																	
125 HP		200		51.39	8.34	12.20	0.44	72.37		59.73	8.96	68.69	81.37	12.21	93.58		1.70
		300		38.10	8.34	12.20	0.44	59.08		46.44	6.97	53.41	68.08	10.21	78.29		1.42
	100100	400	20	30.84	8.34	12.20	0.44	51.82		39.18	5.88	45.06	60.82	9.12	69.95		1.27
		600	(D)	21.61	8.34	12.20	0.44	42.59	9.00	29.95	4.49	34.44	51.59	7.74	59.32	55.0	1.08
		800		17.67	8.34	12.20	0.44	38.65		26.02	3.90	29.92	47.65	7.15	54.80	AC/HR	1.00
80 FOOT BOOM																	$/AC
180 HP		200		78.75	12.78	18.30	0.63	110.47		91.54	13.73	105.27	119.47	17.92	137.39		1.83
		300		58.39	12.78	18.30	0.63	90.10		71.17	10.68	81.85	99.10	14.87	113.97		1.52
	153400	400	30	47.27	12.78	18.30	0.63	78.98		60.05	9.01	69.06	87.98	13.20	101.18		1.35
		600	(D)	33.11	12.78	18.30	0.63	64.82	9.00	45.89	6.88	52.78	73.82	11.07	84.90	75.0	1.13
		800		27.08	12.78	18.30	0.63	58.60		39.87	5.98	45.85	67.80	10.17	77.97	AC/HR	1.04
100 FOOT BOOM																	
200 HP		200		87.28	14.17	24.40	0.70	126.54		101.44	15.22	116.66	135.54	20.33	155.87		1.56
		300		64.71	14.17	24.40	0.70	103.97		78.87	11.83	90.70	112.97	16.95	129.92		1.30
	170000	400	40	52.38	14.17	24.40	0.70	91.65		66.55	9.98	76.53	100.65	15.10	115.75		1.16
		600	(D)	36.69	14.17	24.40	0.70	75.96	9.00	50.86	7.63	58.49	84.96	12.74	97.71	100.0	0.98
		800		30.02	14.17	24.40	0.70	69.28		44.18	6.63	50.81	78.28	11.74	90.02	AC/HR	0.90
								Average Rental Rate per Acre				0.77	Average Custom Rate per Acre				1.24

NOTE: For a custom spraying operation, the cost of transportation would be on average $0.47 /ac. See Appendix A.
: Cost of foam ranges from $.03-$.25/ac.
: For the cost of hauling water to the field add $0.46/acre (assumes 7.5 gal/ac., 12 mile haul & $5.00/1200 gal water cost). See Appendix A.
: For the cost of hauling water to the field add $0.56/acre if the water truck driver is paid for waiting time.
: For a custom spraying operation add a charge for liability insurance and administration costs.

																	$/AC
SWATHERS SP																	
18 FT	66900	60	13	114.49	14.72	7.93	0.26	137.40		129.20	19.38	148.59	146.40	21.96	168.36		19.81
STANDARD		100	(D)	74.43	14.72	7.93	0.26	97.34	9.00	89.14	13.37	102.52	106.34	15.95	122.29	8.5	14.39
TABLE		140		57.57	14.72	7.93	0.26	80.48		72.29	10.84	83.13	89.48	13.42	102.91	AC/HR	12.11
20-22 FT	71300	60	14	122.02	15.69	8.54	0.32	146.56		137.70	20.66	158.36	155.56	23.33	178.89		18.83
SLIDING		100	(D)	79.32	15.69	8.54	0.32	103.86	9.00	95.01	14.25	109.26	112.86	16.93	129.79	9.5	13.66
TABLE		140		61.36	15.69	8.54	0.32	85.90		77.05	11.56	88.60	94.90	14.24	109.14	AC/HR	11.49
24-26 FT	73400	60	14	125.61	16.15	8.54	0.32	150.61		141.76	21.26	163.02	159.61	23.94	183.56		15.96
SLIDING		100	(D)	81.66	16.15	8.54	0.32	106.66	9.00	97.81	14.67	112.48	115.66	17.35	133.01	11.5	11.57
TABLE		140		63.17	16.15	8.54	0.32	88.17		79.31	11.90	91.21	97.17	14.58	111.74	AC/HR	9.72
30 FT	76000	60	15	130.06	16.72	9.15	0.32	156.24		146.78	22.02	168.80	165.24	24.79	190.03		13.57
SLIDING		100	(D)	84.55	16.72	9.15	0.32	110.74	9.00	101.27	15.19	116.46	119.74	17.96	137.70	14.0	9.84
TABLE		140		65.40	16.72	9.15	0.32	91.59		82.12	12.32	94.44	100.59	15.09	115.68	AC/HR	8.26
								Average Rental Rate per Acre				10.42	Average Custom Rate per Acre				12.36

NOTE: To include a hay conditioner add $14.23/hour to the custom rate per hour and divide by the number of acres per hour

POWERED EQUIPMENT

				MACHINE COMPONENT COSTS PER HOUR						MACHINE RENTAL PER HOUR			CUSTOM WORK RATES				
MACHINE SIZE	ORIG. COST	ANN. HOURS OF USE	FUEL TYPE AND LITRE /HOUR	FIXED COST $/HR.	REPAIR COST $/HR.	FUEL COST $/HR.	LUBE & OIL COST /HR.	TOTAL PER HR. COST NO LABOUR $/HR.	LAB. COST $/HR.	BASIC RENTAL COSTS $/HR.	MARGIN $/HR.	RENTAL RATE $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC CUST RATE
TRACTORS 2WD (PTO-HP)																	
		200		9.24	0.99	4.88	0.12	15.23		10.23	1.53	11.77	24.23	3.64	27.87		
		300		6.77	0.99	4.88	0.12	12.77		7.76	1.16	8.93	21.77	3.26	25.03		
30-39 HP	19200	400	8	5.44	0.99	4.88	0.12	11.43		6.43	0.96	7.40	20.43	3.07	23.50		
		600	(D)	3.86	0.99	4.88	0.12	9.85	9.00	4.85	0.73	5.57	18.85	2.83	21.68		
		800		3.11	0.99	4.88	0.12	9.10		4.10	0.62	4.72	18.10	2.72	20.82		
		200		13.67	1.47	5.49	0.16	20.78		15.13	2.27	17.41	29.78	4.47	34.25		
		300		10.02	1.47	5.49	0.16	17.13		11.48	1.72	13.21	26.13	3.92	30.05		
40-49 HP	28400	400	9	8.05	1.47	5.49	0.16	15.16		9.51	1.43	10.94	24.16	3.62	27.78		
		600	(D)	5.70	1.47	5.49	0.16	12.82	9.00	7.17	1.08	8.25	21.82	3.27	25.09		
		800		4.60	1.47	5.49	0.16	11.71		6.06	0.91	6.97	20.71	3.11	23.82		
		200		15.88	1.71	6.10	0.19	23.88		17.59	2.64	20.22	32.88	4.93	37.81		
		300		11.64	1.71	6.10	0.19	19.64		13.34	2.00	15.34	28.64	4.30	32.93		
50-59 HP	33000	400	10	9.35	1.71	6.10	0.19	17.35		11.05	1.66	12.71	26.35	3.95	30.30		
		600	(D)	6.63	1.71	6.10	0.19	14.62	9.00	8.33	1.25	9.58	23.62	3.54	27.17		
		800		5.34	1.71	6.10	0.19	13.34		7.05	1.06	8.10	22.34	3.35	25.69		
		200		18.53	1.99	8.54	0.23	29.28		20.52	3.08	23.59	38.28	5.74	44.03		
		300		13.58	1.99	8.54	0.23	24.33		15.57	2.33	17.90	33.33	5.00	38.33		
60-69 HP	38500	400	14	10.91	1.99	8.54	0.23	21.66		12.90	1.93	14.83	30.66	4.60	35.26		
		600	(D)	7.73	1.99	8.54	0.23	18.49	9.00	9.72	1.46	11.18	27.49	4.12	31.61		
		800		6.23	1.99	8.54	0.23	16.99		8.22	1.23	9.46	25.99	3.90	29.89		
		200		25.46	2.73	9.76	0.26	38.21		28.19	4.23	32.42	47.21	7.08	54.30		
		300		18.66	2.73	9.76	0.26	31.41		21.39	3.21	24.60	40.41	6.06	46.47		
70-79 HP	52900	400	16	14.99	2.73	9.76	0.26	27.74		17.72	2.66	20.38	36.74	5.51	42.25		
		600	(D)	10.62	2.73	9.76	0.26	23.38	9.00	13.36	2.00	15.36	32.38	4.86	37.23		
		800		8.56	2.73	9.76	0.26	21.32		11.30	1.69	12.99	30.32	4.55	34.87		
		200		26.32	2.83	10.98	0.30	40.43		29.15	4.37	33.52	49.43	7.41	56.84		
		300		19.29	2.83	10.98	0.30	33.39		22.12	3.32	25.43	42.39	6.36	48.75		
80-89 HP	54700	400	18	15.50	2.83	10.98	0.30	29.60		18.32	2.75	21.07	38.60	5.79	44.39		
		600	(D)	10.98	2.83	10.98	0.30	25.09	9.00	13.81	2.07	15.88	34.09	5.11	39.20		
		800		8.86	2.83	10.98	0.30	22.96		11.68	1.75	13.43	31.96	4.79	36.75		
		200		31.71	3.40	12.20	0.33	47.65		35.12	5.27	40.39	56.65	8.50	65.15		
		300		23.24	3.40	12.20	0.33	39.18		26.64	4.00	30.64	48.18	7.23	55.40		
90-99 HP	65900	400	20	18.67	3.40	12.20	0.33	34.61		22.07	3.31	25.39	43.61	6.54	50.15		
		600	(D)	13.23	3.40	12.20	0.33	29.17	9.00	16.64	2.50	19.13	38.17	5.73	43.90		
		800		10.67	3.40	12.20	0.33	26.61		14.07	2.11	16.18	35.61	5.34	40.95		
		200		38.31	4.11	14.03	0.39	56.84		42.42	6.36	48.78	65.84	9.88	75.71		
		300		28.07	4.11	14.03	0.39	46.60		32.18	4.83	37.01	55.60	8.34	63.94		
100-119 HP	79800	400	23	22.55	4.11	14.03	0.39	41.08		26.66	4.00	30.66	50.08	7.51	57.59		
		600	(D)	15.98	4.11	14.03	0.39	34.51	9.00	20.10	3.01	23.11	43.51	6.53	50.04		
		800		12.89	4.11	14.03	0.39	31.41		17.00	2.55	19.55	40.41	6.06	46.48		
		200		44.66	4.79	17.08	0.46	66.99		49.45	7.42	56.87	75.99	11.40	87.39		
		300		32.73	4.79	17.08	0.46	55.06		37.52	5.63	43.15	64.06	9.61	73.66		
120-139 HP	92800	400	28	26.29	4.79	17.08	0.46	48.62		31.08	4.66	35.75	57.62	8.64	66.26		
		600	(D)	18.63	4.79	17.08	0.46	40.96	9.00	23.43	3.51	26.94	49.96	7.49	57.46		
		800		15.02	4.79	17.08	0.46	37.35		19.82	2.97	22.79	46.35	6.95	53.31		
		200		48.46	5.20	19.52	0.53	73.71		53.66	8.05	61.71	82.71	12.41	95.12		
		300		35.51	5.20	19.52	0.53	60.76		40.71	6.11	46.82	69.76	10.46	80.22		
140-159 HP	100700	400	32	28.53	5.20	19.52	0.53	53.78		33.73	5.06	38.79	62.78	9.42	72.19		
		600	(D)	20.22	5.20	19.52	0.53	45.47	9.00	25.42	3.81	29.24	54.47	8.17	62.64		
		800		16.30	5.20	19.52	0.53	41.55		21.51	3.23	24.73	50.55	7.58	58.13		

NOTE: For MFWD add the following to the Custom Rate $/HR, for 30-99 HP add $0.04/HP/HR
for over 99HP add $0.03/HP/HR

POWERED EQUIPMENT

				MACHINE COMPONENT COSTS PER HOUR						MACHINE RENTAL PER HOUR			CUSTOM WORK RATES				
MACHINE SIZE	ORIG. COST	ANN. HOURS OF USE	FUEL TYPE AND LITRE /HOUR	FIXED COST $/HR.	REPAIR COST $/HR.	FUEL COST $/HR.	LUBE & OIL COST /HR.	TOTAL PER HR. COST NO LABOUR $/HR.	LAB. COST $/HR.	BASIC RENTAL COSTS $/HR.	MARGIN $/HR.	RENTAL RATE $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
TRACTORS 2WD continued (PTO-HP)																	
		200		54.86	5.89	23.79	0.60	85.14		60.75	9.11	69.87	94.14	14.12	108.26		
		300		40.20	5.89	23.79	0.60	70.48		46.09	6.91	53.01	79.48	11.92	91.40		
160-179 HP	114000	400	39	32.30	5.89	23.79	0.60	62.57		38.19	5.73	43.91	71.57	10.74	82.31		
		600	(D)	22.89	5.89	23.79	0.60	53.17	9.00	28.78	4.32	33.10	62.17	9.32	71.49		
		800		18.46	5.89	23.79	0.60	48.73		24.35	3.65	28.00	57.73	8.66	66.39		
		200		61.60	6.61	28.06	0.63	96.90		68.21	10.23	78.45	105.90	15.89	121.79		
		300		45.14	6.61	28.06	0.63	80.44		51.75	7.76	59.52	89.44	13.42	102.86		
180+ HP	128000	400	46	36.26	6.61	28.06	0.63	71.57		42.88	6.43	49.31	80.57	12.08	92.65		
		600	(D)	25.70	6.61	28.06	0.63	61.01	9.00	32.32	4.85	37.16	70.01	10.50	80.51		
		800		20.72	6.61	28.06	0.63	56.03		27.34	4.10	31.44	65.03	9.75	74.78		
NOTE: For MFWD add the following to the Custom Rate $/HR, for 30-99 HP add $0.04/HP/HR for over 99HP add $0.03/HP/HR																	
TRACTORS 4WD (Engine - HP)																	
		200		45.19	4.07	21.35	0.42	71.03		49.26	7.39	56.65	80.03	12.00	92.03		
		300		33.11	4.07	21.35	0.42	58.95		37.18	5.58	42.76	67.95	10.19	78.15		
100-130 HP	93900	400	35	26.60	4.07	21.35	0.42	52.44		30.67	4.60	35.27	61.44	9.22	70.66		
		600	(D)	18.86	4.07	21.35	0.42	44.69	9.00	22.92	3.44	26.36	53.69	8.05	61.75		
		800		15.20	4.07	21.35	0.42	41.04		19.27	2.89	22.16	50.04	7.51	57.55		
		200		64.10	5.77	25.01	0.96	95.85		69.87	10.48	80.36	104.85	15.73	120.57		
		300		46.97	5.77	25.01	0.96	78.72		52.75	7.91	60.66	87.72	13.16	100.88		
250-299 HP	133200	400	41	37.74	5.77	25.01	0.96	69.48		43.51	6.53	50.03	78.48	11.77	90.25		
		600	(D)	26.75	5.77	25.01	0.96	58.49	9.00	32.52	4.88	37.40	67.49	10.12	77.61		
		800		21.56	5.77	25.01	0.96	53.31		27.34	4.10	31.44	62.31	9.35	71.65		
		200		74.26	6.69	28.06	1.14	110.14		80.94	12.14	93.08	119.14	17.87	137.01		
		300		54.41	6.69	28.06	1.14	90.30		61.10	9.17	70.27	99.30	14.89	114.19		
300-349 HP	154300	400	46	43.71	6.69	28.06	1.14	79.60		50.40	7.56	57.96	88.60	13.29	101.89		
		600	(D)	30.98	6.69	28.06	1.14	66.87	9.00	37.67	5.65	43.32	75.87	11.38	87.25		
		800		24.98	6.69	28.06	1.14	60.86		31.67	4.75	36.42	69.86	10.48	80.34		
		200		84.46	7.61	30.50	1.31	123.88		92.06	13.81	105.87	132.88	19.93	152.81		
		300		61.89	7.61	30.50	1.31	101.31		69.50	10.42	79.92	110.31	16.55	126.85		
350-399 HP	175500	400	50	49.72	7.61	30.50	1.31	89.14		57.32	8.60	65.92	98.14	14.72	112.86		
		600	(D)	35.24	7.61	30.50	1.31	74.66	9.00	42.85	6.43	49.27	83.66	12.55	96.21		
		800		28.41	7.61	30.50	1.31	67.83		36.02	5.40	41.42	76.83	11.52	88.35		
		200		95.43	8.59	34.16	1.44	139.63		104.02	15.60	119.63	148.63	22.29	170.92		
		300		69.93	8.59	34.16	1.44	114.13		78.52	11.78	90.30	123.13	18.47	141.59		
400-425 HP	198300	400	56	56.18	8.59	34.16	1.44	100.37		64.77	9.72	74.49	109.37	16.41	125.78		
		600	(D)	39.82	8.59	34.16	1.44	84.01	9.00	48.41	7.26	55.67	93.01	13.95	106.97		
		800		32.10	8.59	34.16	1.44	76.30		40.70	6.10	46.80	85.30	12.79	98.09		
		200		99.38	8.95	38.43	1.58	148.33		108.33	16.25	124.58	157.33	23.60	180.93		
		300		72.82	8.95	38.43	1.58	121.78		81.77	12.27	94.04	130.78	19.62	150.39		
430+ HP	206500	400	63	58.50	8.95	38.43	1.58	107.45		67.45	10.12	77.57	116.45	17.47	133.92		
		600	(D)	41.47	8.95	38.43	1.58	90.42	9.00	50.41	7.56	57.98	99.42	14.91	114.33		
		800		33.43	8.95	38.43	1.58	82.38		42.38	6.36	48.74	91.38	13.71	105.09		

POWERED EQUIPMENT

				MACHINE COMPONENT COSTS PER HOUR						MACHINE RENTAL PER HOUR			CUSTOM WORK RATES				
MACHINE SIZE	ORIG COST	ANN. HOURS OF USE	FUEL TYPE AND LITRE /HOUR	FIXED COST $/HR.	REPAIR COST $/HR.	FUEL COST $/HR.	LUBE & OIL COST /HR.	TOTAL PER HR COST NO LABOUR $/HR.	LAB. COST $/HR.	BASIC RENTAL COSTS $/HR.	MARGIN $/HR.	RENTAL RATE $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC CUSTO RATE
TRUCKS GRAIN																	
1 TON	37200	100	18	43.87	6.20	11.70	0.42	62.19		50.07	7.51	57.57	71.19	10.68	81.86		
		150	(G)	31.31	6.20	11.70	0.42	49.63	9.00	37.51	5.63	43.14	58.63	8.79	67.42		
		200		24.75	6.20	11.70	0.42	43.07		30.95	4.64	35.59	52.07	7.81	59.88		
3 TON	62600	100	23	73.82	10.43	14.95	0.42	99.62		84.25	12.64	96.89	108.62	16.29	124.91		
		150	(G)	52.69	10.43	14.95	0.42	78.49	9.00	63.12	9.47	72.59	87.49	13.12	100.62		
		200		41.65	10.43	14.95	0.42	67.45		52.08	7.81	59.90	76.45	11.47	87.92		
4 TON	87000	100	27	102.59	14.50	16.47	0.88	134.43		117.09	17.56	134.65	143.43	21.51	164.95		
TANDEM		150	(D)	73.23	14.50	16.47	0.88	105.07	9.00	87.73	13.16	100.88	114.07	17.11	131.18		
DIESEL		200		57.88	14.50	16.47	0.88	89.73		72.38	10.86	83.24	98.73	14.81	113.54		
1T trucks were priced with grain box, hoist and roll tarp																	
3T and 4T trucks were priced with grain box, hoist and roll tarp																	
See Appendix A for custom grain hauling for seeding and harvesting																	
TRUCKS PICK-UP																	
1/2 TON	25100	200	14	17.19	3.11	9.10	0.35	29.75		20.30	3.05	23.35	38.75	5.81	44.56		
		250	(G)	14.18	3.11	9.10	0.35	26.74	9.00	17.29	2.59	19.89	35.74	5.36	41.11		
		300		12.21	3.11	9.10	0.35	24.78		15.33	2.30	17.63	33.78	5.07	38.84		
3/4 TON	28500	200	16	19.52	3.53	10.40	0.35	33.80		23.05	3.46	26.51	42.80	6.42	49.22		
		250	(G)	16.10	3.53	10.40	0.35	30.39	9.00	19.64	2.95	22.58	39.39	5.91	45.29		
		300		13.87	3.53	10.40	0.35	28.15		17.40	2.61	20.01	37.15	5.57	42.73		

DRAWN EQUIPMENT - GRAIN

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
AIR DISK DRILLS, ZERO TILL *																
30-35 FT	84900	100	88.46	16.98	105.44	105.44	15.82	121.25	105.44			167.60	25.14	192.75		16.06
		150	62.97	16.98	79.95	79.95	11.99	91.94	79.95	53.17	9.00	142.11	21.32	163.43	12.0	13.62
		200	50.06	16.98	67.04	67.04	10.06	77.09	67.04	170 HP		129.20	19.38	148.58	AC/HR	12.38
36-40 FT	97300	100	101.38	19.46	120.84	120.84	18.13	138.96	120.84			192.84	28.63	219.47		16.26
		150	72.16	19.46	91.62	91.62	13.74	105.37	91.62	61.01	9.00	161.63	24.24	185.87	13.5	13.77
		200	57.37	19.46	76.83	76.83	11.52	88.35	76.83	185 HP		146.83	22.02	168.86	AC/HR	12.51
41-45 FT	111400	100	116.07	22.28	138.35	138.35	20.75	159.10	138.35			205.84	30.88	236.72		14.79
		150	82.62	22.28	104.90	104.90	15.74	120.64	104.90	58.49	9.00	172.39	25.86	198.25	16.0	12.39
		200	65.68	22.28	87.96	87.96	13.19	101.15	87.96	275 HP		155.45	23.32	178.77	AC/HR	11.17
					Average Rental Rate per Acre			7.87				Average Custom Rate per Acre				13.26
NOTE: Work rates may require adjustment for heavy straw conditions or high fertilizer rates																
AIR HOE DRILLS, ZERO TILL OR SIDE BANDING ZERO TILL AIR SEEDERS WITH INDIVIDUAL GAUGE PACKERS *																$/AC
30-35 FT	70200	100	73.14	14.04	87.18	87.18	13.08	100.26	87.18			149.35	22.40	171.75		13.74
		150	52.07	14.04	66.11	66.11	9.92	76.02	66.11	53.17	9.00	128.27	19.24	147.51	12.5	11.80
		200	41.39	14.04	55.43	55.43	8.31	63.74	55.43	170 HP		117.60	17.64	135.23	AC/HR	10.82
36-40 FT	79800	100	83.14	15.96	99.10	99.10	14.87	113.97	99.10			169.11	25.37	194.48		13.89
		150	59.19	15.96	75.15	75.15	11.27	86.42	75.15	61.01	9.00	145.15	21.77	166.92	14.0	11.92
		200	47.05	15.96	63.01	63.01	9.45	72.46	63.01	185 HP		133.01	19.95	152.97	AC/HR	10.93
41-45 FT	91600	100	95.44	18.32	113.76	113.76	17.06	130.82	113.76			181.25	27.19	208.44		13.03
		150	67.94	18.32	86.26	86.26	12.94	99.20	86.26	58.49	9.00	153.75	23.06	176.81	16.0	11.05
		200	54.01	18.32	72.33	72.33	10.85	83.17	72.33	275 HP		139.82	20.97	160.79	AC/HR	10.05
46-50 FT	99000	100	103.15	19.80	122.95	122.95	18.44	141.39	122.95			190.44	28.57	219.01		12.17
		150	73.43	19.80	93.23	93.23	13.98	107.21	93.23	58.49	9.00	160.72	24.11	184.82	18.0	10.27
		200	58.37	19.80	78.17	78.17	11.73	89.89	78.17	275 HP		145.66	21.85	167.51	AC/HR	9.31
51-55 FT	96700	100	100.75	19.34	120.09	120.09	18.01	138.11	120.09			195.96	29.39	225.35		11.27
		150	71.72	19.34	91.06	91.06	13.66	104.72	91.06	86.87	9.00	166.93	25.04	191.97	20.0	9.60
		200	57.01	19.34	76.35	76.35	11.45	87.81	76.35	325 HP		152.22	22.83	175.05	AC/HR	8.75
					Average Rental Rate per Acre			5.93				Average Custom Rate per Acre				10.93
NOTE: Work rates may require adjustment for heavy straw conditions or high fertilizer rates																

* See introduction for the classification of Air Drills, Air Seeders and Zero Till Drills

DRAWN EQUIPMENT - GRAIN

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
AIR SEEDERS, MINIMUM TILL *																$/AC
24-25 FT	54700	100	56.99	10.94	67.93	67.93	10.19	78.12	67.93			122.40	18.36	140.76		12.80
		150	40.57	10.94	51.51	51.51	7.73	59.24	51.51	45.47	9.00	105.98	15.90	121.87	11.0	11.08
		200	32.25	10.94	43.19	43.19	6.48	49.67	43.19	150 HP		97.66	14.65	112.31	AC/HR	10.21
28-30 FT	63600	100	66.27	12.72	78.99	78.99	11.85	90.83	78.99			141.15	21.17	162.32		12.02
		150	47.17	12.72	59.89	59.89	8.98	68.87	59.89	53.17	9.00	122.06	18.31	140.36	13.5	10.40
		200	37.50	12.72	50.22	50.22	7.53	57.75	50.22	170 HP		112.38	16.86	129.24	AC/HR	9.57
34-35 FT	72200	100	75.23	14.44	89.67	89.67	13.45	103.12	89.67			157.16	23.57	180.73		11.30
		150	53.55	14.44	67.99	67.99	10.20	78.19	67.99	58.49	9.00	135.48	20.32	155.80	16.0	9.74
		200	42.57	14.44	57.01	57.01	8.55	65.56	57.01	275 HP		124.50	18.67	143.17	AC/HR	8.95
40-41 FT	75400	100	78.56	15.08	93.64	93.64	14.05	107.69	93.64			161.13	24.17	185.30		10.02
		150	55.92	15.08	71.00	71.00	10.65	81.65	71.00	58.49	9.00	138.49	20.77	159.27	18.5	8.61
		200	44.45	15.08	59.53	59.53	8.93	68.46	59.53	275 HP		127.03	19.05	146.08	AC/HR	7.90
46-47 FT	86000	100	89.60	17.20	106.80	106.80	16.02	122.83	106.80			174.30	26.14	200.44		9.32
		150	63.78	17.20	80.98	80.98	12.15	93.13	80.98	58.49	9.00	148.47	22.27	170.75	21.5	7.94
		200	50.70	17.20	67.90	67.90	10.19	78.09	67.90	275 HP		135.40	20.31	155.70	AC/HR	7.24
					Average Rental Rate per Acre			4.82				Average Custom Rate per Acre				9.55

Note: If equipped with mounted harrows add $0.49/AC
: If equipped with tow behind packers add $2.31/AC

AIR SEEDERS, ZERO TILL *																$/AC
24-25 FT	60300	100	62.83	12.06	74.89	74.89	11.23	86.12	74.89			129.36	19.40	148.76		16.53
		150	44.72	12.06	56.78	56.78	8.52	65.30	56.78	45.47	9.00	111.25	16.69	127.94	9.0	14.22
		200	35.55	12.06	47.61	47.61	7.14	54.75	47.61	150 HP		102.08	15.31	117.39	AC/HR	13.04
28-30 FT	70600	100	73.56	14.12	87.68	87.68	13.15	100.83	87.68			149.85	22.48	172.32		15.67
		150	52.36	14.12	66.48	66.48	9.97	76.45	66.48	53.17	9.00	128.65	19.30	147.95	11.0	13.45
		200	41.62	14.12	55.74	55.74	8.36	64.11	55.74	170 HP		117.91	17.69	135.60	AC/HR	12.33
34-35 FT	81000	100	84.39	16.20	100.59	100.59	15.09	115.68	100.59			168.09	25.21	193.30		14.87
		150	60.08	16.20	76.28	76.28	11.44	87.72	76.28	58.49	9.00	143.77	21.53	165.33	13.0	12.72
		200	47.76	16.20	63.96	63.96	9.59	73.55	63.96	275 HP		131.45	19.72	151.16	AC/HR	11.63
40-41 FT	84700	100	88.25	16.94	105.19	105.19	15.78	120.97	105.19			172.68	25.90	198.58		13.24
		150	62.82	16.94	79.76	79.76	11.96	91.72	79.76	58.49	9.00	147.25	22.09	169.34	15.0	11.29
		200	49.94	16.94	66.88	66.88	10.03	76.91	66.88	275 HP		134.37	20.16	154.52	AC/HR	10.30
46-47 FT	97700	100	101.79	19.54	121.33	121.33	18.20	139.53	121.33			188.83	28.32	217.15		12.41
		150	72.46	19.54	92.00	92.00	13.80	105.80	92.00	58.49	9.00	159.49	23.92	183.42	17.5	10.48
		200	57.60	19.54	77.14	77.14	11.57	88.71	77.14	275 HP		144.63	21.70	166.33	AC/HR	9.50
					Average Rental Rate per Acre			6.62				Average Custom Rate per Acre				12.43

NOTE: Work rates may require adjustment for heavy straw conditions or high fertilizer rates

* See introduction for the classification of Air Drills, Air Seeders and Zero Till Drills

DRAWN EQUIPMENT - GRAIN

MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	MACHINE COSTS PER HOUR: FIXED COST $/HR.	REPAIR COST $/HP.	TOTAL COST NO LABOUR $/HR.	MACHINE RENTAL PER HOUR: BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	CUSTOM WORK RATES: TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
ANHYDROUS AMMONIA APPLICATORS, 1600 GAL TANK & HD CULTIVATOR																
25 FT	34700	150	23.75	7.63	31.39	31.39	4.71	36.10	31.39			74.90	11.23	86.13		7.49
		250	15.44	7.63	23.08	23.08	3.46	26.54	23.08	34.51	9.00	66.59	9.99	76.57	11.5	6.66
		350	11.94	7.63	19.58	19.58	2.94	22.52	19.58	110 HP		63.09	9.46	72.55	AC/HR	6.31
36 FT	43400	150	29.71	9.55	39.26	39.26	5.89	45.14	39.26			101.42	15.21	116.64		7.07
		250	19.31	9.55	28.86	28.86	4.33	33.19	28.86	53.17	9.00	91.03	13.65	104.68	16.5	6.34
		350	14.94	9.55	24.49	24.49	3.67	28.16	24.49	170 HP		86.65	13.00	99.65	AC/HR	6.04
48 FT	56500	150	38.68	12.43	51.11	51.11	7.67	58.77	51.11			121.11	18.17	139.28		6.33
		250	25.14	12.43	37.57	37.57	5.64	43.21	37.57	61.01	9.00	107.58	16.14	123.72	22.0	5.62
		350	19.45	12.43	31.88	31.88	4.78	36.66	31.88	185 HP		101.88	15.28	117.17	AC/HR	5.33
					Average Rental Rate per Acre			2.09						Average Custom Rate per Acre		6.21

COMBINES, PTO

There are currently no new pull type combines being sold in Saskatchewan and as a result PTO combines have been removed from the Farm Machinery Custom and Rental Rate Guide. 1993 was the last year PTO combines were included in the guide. In 1993 the medium size PTO combine custom rate was $13.08 per acre. In the ten years from 1984 to 1993 the PTO combine custom rate averaged 98% of the self propelled combine custom rate. To calculate the PTO custom combine rate multiply the SP custom combine rate by .98. For 2000, 98% of the SP combine custom rate is $18.95 per acre.

CULTIVATORS FIELD																$/AC
14-15 FT	13100	150	8.97	2.88	11.85	11.85	1.78	13.63	11.85			39.34	5.90	45.24		6.03
		250	5.83	2.88	8.71	8.71	1.31	10.02	8.71	18.49	9.00	36.20	5.43	41.63	7.5	5.55
		350	4.51	2.88	7.39	7.39	1.11	8.50	7.39	65 HP		34.88	5.23	40.11	AC/HR	5.35
20-21 FT	15700	150	10.75	3.45	14.20	14.20	2.13	16.33	14.20			48.29	7.24	55.53		5.55
		250	6.99	3.45	10.44	10.44	1.57	12.01	10.44	25.09	9.00	44.53	6.68	51.21	10.0	5.12
		350	5.40	3.45	8.86	8.86	1.33	10.19	8.86	85 HP		42.95	6.44	49.39	AC/HR	4.94
25-27FT	20900	150	14.31	4.60	18.90	18.90	2.84	21.74	18.90			62.42	9.36	71.78		5.32
		250	9.30	4.60	13.90	13.90	2.08	15.98	13.90	34.51	9.00	57.41	8.61	66.02	13.5	4.89
		350	7.19	4.60	11.79	11.79	1.77	13.56	11.79	110 HP		55.30	8.30	63.60	AC/HR	4.71
33-34 FT	21400	150	14.65	4.71	19.36	19.36	2.90	22.26	19.36			69.32	10.40	79.72		4.83
		250	9.52	4.71	14.23	14.23	2.13	16.37	14.23	40.96	9.00	64.20	9.63	73.82	16.5	4.47
		350	7.37	4.71	12.07	12.07	1.81	13.89	12.07	130 HP		62.04	9.31	71.34	AC/HR	4.32
41-45 FT	29500	150	20.19	6.49	26.68	26.68	4.00	30.68	26.68			81.15	12.17	93.32		4.34
		250	13.13	6.49	19.62	19.62	2.94	22.56	19.62	45.47	9.00	74.09	11.11	85.20	21.5	3.96
		350	10.15	6.49	16.64	16.64	2.50	19.14	16.64	150 HP		71.11	10.67	81.78	AC/HR	3.80
46-50 FT	37700	150	25.81	8.29	34.10	34.10	5.12	39.22	34.10			96.27	14.44	110.71		4.81
		250	16.78	8.29	25.07	25.07	3.76	28.83	25.07	53.17	9.00	87.24	13.09	100.32	24.0	4.18
		350	12.98	8.29	21.27	21.27	3.19	24.46	21.27	170 HP		83.44	12.52	95.95	AC/HR	4.00
51-55 FT	40600	150	27.79	8.93	36.72	36.72	5.51	42.23	36.72			104.21	15.63	119.85		4.52
		250	18.07	8.93	27.00	27.00	4.05	31.05	27.00	58.49	9.00	94.49	14.17	108.66	26.5	4.10
		350	13.98	8.93	22.91	22.91	3.44	26.34	22.91	275 HP		90.40	13.56	103.96	AC/HR	3.92
56-60 FT	46900	150	32.10	10.32	42.42	42.42	6.36	48.79	42.42			109.91	16.49	126.40		4.36
		250	20.87	10.32	31.19	31.19	4.68	35.87	31.19	58.49	9.00	98.68	14.80	113.48	29.0	3.91
		350	16.14	10.32	26.46	26.46	3.97	30.43	26.46	275 HP		93.95	14.09	108.05	AC/HR	3.73
					Average Rental Rate per Acre			1.17						Average Custom Rate per Acre		4.52

Note: If equipped with mounted harrows add $0.49/AC

DRAWN EQUIPMENT - GRAIN

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
CULTIVATORS HEAVY DUTY																$/AC
18-20 FT	17300	150	11.84	3.81	15.65	15.65	2.35	18.00	15.65			49.74	7.46	57.20		6.02
		250	7.70	3.81	11.50	11.50	1.73	13.23	11.50	25.09	9.00	45.59	6.84	52.43	9.5	5.52
		350	5.96	3.81	9.76	9.76	1.46	11.23	9.76	85 HP		43.85	6.58	50.43	AC/HR	5.31
21-22 FT	18500	150	12.66	4.07	16.73	16.73	2.51	19.24	16.73			60.25	9.04	69.28		6.30
		250	8.23	4.07	12.30	12.30	1.85	14.15	12.30	34.51	9.00	55.81	8.37	64.19	11.0	5.84
		350	6.37	4.07	10.44	10.44	1.57	12.00	10.44	110 HP		53.95	8.09	62.04	AC/HR	5.64
23-25 FT	21600	150	14.79	4.75	19.54	19.54	2.93	22.47	19.54			63.05	9.46	72.51		6.04
		250	9.61	4.75	14.36	14.36	2.15	16.52	14.36	34.51	9.00	57.88	8.68	66.56	12.0	5.55
		350	7.44	4.75	12.19	12.19	1.83	14.02	12.19	110 HP		55.70	8.35	64.05	AC/HR	5.34
27-29 FT	24300	150	16.63	5.35	21.98	21.98	3.30	25.28	21.98			71.94	10.79	82.74		6.13
		250	10.81	5.35	16.16	16.16	2.42	18.58	16.16	40.96	9.00	66.12	9.92	76.04	13.5	5.63
		350	8.36	5.35	13.71	13.71	2.06	15.77	13.71	130 HP		63.67	9.55	73.23	AC/HR	5.42
30-31 FT	26600	150	18.21	5.85	24.06	24.06	3.61	27.67	24.06			78.53	11.78	90.31		5.83
		250	11.84	5.85	17.69	17.69	2.65	20.34	17.69	45.47	9.00	72.16	10.82	82.98	15.5	5.35
		350	9.16	5.85	15.01	15.01	2.25	17.26	15.01	150 HP		69.48	10.42	79.90	AC/HR	5.15
32-33 FT	27400	150	18.76	6.03	24.78	24.78	3.72	28.50	24.78			79.25	11.89	91.14		5.52
		250	12.19	6.03	18.22	18.22	2.73	20.95	18.22	45.47	9.00	72.69	10.90	83.59	16.5	5.07
		350	9.43	6.03	15.46	15.46	2.32	17.78	15.46	150 HP		69.93	10.49	80.42	AC/HR	4.87
34-35 FT	28400	150	19.44	6.25	25.69	25.69	3.85	29.54	25.69			80.16	12.02	92.18		5.27
		250	12.64	6.25	18.89	18.89	2.83	21.72	18.89	45.47	9.00	73.35	11.00	84.36	17.5	4.82
		350	9.78	6.25	16.02	16.02	2.40	18.43	16.02	150 HP		70.49	10.57	81.07	AC/HR	4.63
36-37 FT	30200	150	20.67	6.64	27.32	27.32	4.10	31.41	27.32			89.48	13.42	102.91		5.56
		250	13.44	6.64	20.08	20.08	3.01	23.10	20.08	53.17	9.00	82.25	12.34	94.59	18.5	5.11
		350	10.40	6.64	17.04	17.04	2.56	19.60	17.04	170 HP		79.21	11.88	91.09	AC/HR	4.92
40-41 FT	31800	150	21.77	7.00	28.76	28.76	4.31	33.08	28.76			90.93	13.64	104.57		5.10
		250	14.15	7.00	21.15	21.15	3.17	24.32	21.15	53.17	9.00	83.31	12.50	95.81	20.5	4.67
		350	10.95	7.00	17.94	17.94	2.69	20.63	17.94	170 HP		80.11	12.02	92.13	AC/HR	4.49
45-47 FT	43100	150	29.50	9.48	38.98	38.98	5.85	44.83	38.98			108.99	16.35	125.34		5.45
		250	19.18	9.48	28.66	28.66	4.30	32.96	28.66	61.01	9.00	98.67	14.80	113.47	23.0	4.93
		350	14.84	9.48	24.32	24.32	3.65	27.97	24.32	185 HP		94.32	14.15	108.47	AC/HR	4.72
58-60 FT	48800	150	33.40	10.74	44.14	44.14	6.62	50.76	44.14			111.63	16.74	128.38		4.35
		250	21.72	10.74	32.45	32.45	4.87	37.32	32.45	58.49	9.00	99.94	14.99	114.93	29.5	3.90
		350	16.80	10.74	27.53	27.53	4.13	31.66	27.53	275 HP		95.03	14.25	109.28	AC/HR	3.70
					Average Rental Rate per Acre			1.31						Average Custom Rate per Acre		5.13

Note: If equipped with mounted harrows add $0.49/AC

DRAWN EQUIPMENT - GRAIN

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
CULTIVATORS, WIDE BLADE																$/AC
25 FT	14300	150	9.79	3.15	12.93	12.93	1.94	14.87	12.93			62.90	9.43	72.33		7.23
		250	6.36	3.15	9.51	9.51	1.43	10.94	9.51	40.96	9.00	59.47	8.92	68.39	10.0	6.84
		350	4.92	3.15	8.07	8.07	1.21	9.28	8.07	130 HP		58.03	8.70	66.74	AC/HR	6.67
35 FT	20700	150	14.17	4.55	18.72	18.72	2.81	21.53	18.72			80.89	12.13	93.02		6.64
		250	9.21	4.55	13.77	13.77	2.06	15.83	13.77	53.17	9.00	75.93	11.39	87.32	14.0	6.24
		350	7.13	4.55	11.68	11.68	1.75	13.43	11.68	170 HP		73.85	11.08	84.92	AC/HR	6.07
45 FT	31400	150	21.49	6.91	28.40	28.40	4.26	32.66	28.40			98.41	14.76	113.17		6.29
		250	13.97	6.91	20.88	20.88	3.13	24.01	20.88	61.01	9.00	90.89	13.63	104.52	18.0	5.81
		350	10.81	6.91	17.72	17.72	2.66	20.37	17.72	185 HP		87.72	13.16	100.88	AC/HR	5.60
					Average Rental Rate per Acre			1.19				Average Custom Rate per Acre				6.29
NOTE: Wide blade cultivators are not currently being manufactured. The above prices are the last available (1998).																
DISCERS, W/SEED & FERTILIZER																$/AC
15-16 FT	15200	100	15.84	3.04	18.88	18.88	2.83	21.71	18.88			51.26	7.69	58.94		9.07
		150	11.27	3.04	14.31	14.31	2.15	16.46	14.31	23.38	9.00	46.69	7.00	53.70	8.5	8.26
		200	8.96	3.04	12.00	12.00	1.80	13.80	12.00	75 HP		44.38	6.66	51.04	AC/HR	7.85
24 FT	21600	100	22.51	4.32	26.83	26.83	4.02	30.85	26.83			70.34	10.55	80.89		8.09
		150	16.02	4.32	20.34	20.34	3.05	23.39	20.34	34.51	9.00	63.85	9.58	73.43	10.0	7.34
		200	12.74	4.32	17.06	17.06	2.56	19.61	17.06	110 HP		60.57	9.08	69.65	AC/HR	6.97
30-32 FT	29800	100	31.05	5.96	37.01	37.01	5.55	42.5	37.01			91.48	13.72	105.20		8.09
		150	22.10	5.96	28.06	28.06	4.21	32.27	28.06	45.47	9.00	82.53	12.38	94.91	13.0	7.30
		200	17.57	5.96	23.53	23.53	3.53	27.06	23.53	150 HP		78.00	11.70	89.70	AC/HR	6.90
36 FT	32700	100	34.07	6.54	40.61	40.61	6.09	46.70	40.61			110.62	16.59	127.21		8.48
		150	24.25	6.54	30.79	30.79	4.62	35.41	30.79	61.01	9.00	100.80	15.12	115.92	15.0	7.73
		200	19.28	6.54	25.82	25.82	3.87	29.69	25.82	185 HP		95.83	14.37	110.20	AC/HR	7.35
45-48 FT	44900	100	46.78	8.98	55.76	55.76	8.36	64.13	55.76			123.25	18.49	141.74		7.46
		150	33.30	8.98	42.28	42.28	6.34	48.62	42.28	58.49	9.00	109.77	16.47	126.24	19.0	6.64
		200	26.47	8.98	35.45	35.45	5.32	40.77	35.45	250 HP		102.94	15.44	118.39	AC/HR	6.23
					Average Rental Rate per Acre			2.45				Average Custom Rate per Acre				7.46
NOTE: Discers are not currently being manufactured. The above prices are the last available(1993).																
DISKS, HEAVY BREAKING																$/AC
10-12 FT	21500	100	22.40	4.30	26.70	26.70	4.01	30.71	26.70			96.71	14.51	111.21		20.22
		150	15.96	4.30	20.25	20.25	3.04	23.28	20.25	61.01	9.00	90.25	13.54	103.79	5.5	18.87
		200	12.68	4.30	16.98	16.98	2.55	19.52	16.98	185 HP		86.98	13.05	100.03	AC/HR	18.19
14-16 FT	27200	100	28.34	5.44	33.78	33.78	5.07	38.85	33.78			103.79	15.57	119.35		15.91
		150	20.17	5.44	25.61	25.61	3.84	29.46	25.61	61.01	9.00	95.62	14.34	109.96	7.5	14.66
		200	16.04	5.44	21.48	21.48	3.22	24.70	21.48	185 HP		91.48	13.72	105.20	AC/HR	14.03
					Average Rental Rate per Acre			4.08				Average Custom Rate per Acre				16.77

DRAWN EQUIPMENT - GRAIN

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
DISKS, HEAVY TANDEM																$/AC
12-14 FT	11900	100	12.40	2.38	14.78	14.78	2.22	17.00	14.78			42.27	6.34	48.61		7.48
		150	8.83	2.38	11.21	11.21	1.68	12.89	11.21	18.49	9.00	38.69	5.80	44.50	6.5	6.85
		200	7.02	2.38	9.40	9.40	1.41	10.81	9.40	65 HP		36.88	5.53	42.42	AC/HR	6.53
15-17 FT	15300	100	15.94	3.06	19.00	19.00	2.85	21.85	19.00			53.09	7.96	61.05		7.63
		150	11.35	3.06	14.41	14.41	2.16	16.57	14.41	25.09	9.00	48.49	7.27	55.77	8.0	6.97
		200	9.02	3.06	12.08	12.08	1.81	13.89	12.08	85 HP		46.17	6.93	53.09	AC/HR	6.64
18-19 FT	22000	100	22.92	4.40	27.32	27.32	4.10	31.42	27.32			61.41	9.21	70.62		7.43
		150	16.32	4.40	20.72	20.72	3.11	23.82	20.72	25.09	9.00	54.80	8.22	63.02	9.5	6.63
		200	12.97	4.40	17.37	17.37	2.61	19.98	17.37	85 HP		51.46	7.72	59.18	AC/HR	6.23
20-22 FT	26000	100	27.09	5.20	32.29	32.29	4.84	37.13	32.29			86.76	13.01	99.77	-	9.50
		150	19.28	5.20	24.48	24.48	3.67	28.16	24.48	45.47	9.00	78.95	11.84	90.79	10.5	8.65
		200	15.33	5.20	20.53	20.53	3.08	23.61	20.53	150 HP		75.00	11.25	86.25	AC/HR	8.21
23-25 FT	30700	100	31.99	6.14	38.13	38.13	5.72	43.85	38.13			100.29	15.04	115.34		9.61
		150	22.77	6.14	28.91	28.91	4.34	33.25	28.91	53.17	9.00	91.08	13.66	104.74	12.0	8.73
		200	18.10	6.14	24.24	24.24	3.64	27.88	24.24	170 HP		86.41	12.96	99.37	AC/HR	8.28
26-28 FT	34100	100	35.53	6.82	42.35	42.35	6.35	48.70	42.35			112.36	16.85	129.21		9.57
		150	25.29	6.82	32.11	32.11	4.82	36.93	32.11	61.01	9.00	102.12	15.32	117.43	13.5	8.70
		200	20.10	6.82	26.92	26.92	4.04	30.96	26.92	185 HP		96.93	14.54	111.47	AC/HR	8.26
29-32 FT	38000	100	39.59	7.60	47.19	47.19	7.08	54.27	47.19			114.68	17.20	131.89		8.79
		150	28.18	7.60	35.78	35.78	5.37	41.15	35.78	58.49	9.00	103.27	15.49	118.77	15.0	7.92
		200	22.40	7.60	30.00	30.00	4.50	34.50	30.00	275 HP		97.50	14.62	112.12	AC/HR	7.47
					Average Rental Rate per Acre			2.50				Average Custom Rate per Acre				7.78
DRILLS DISK PRESS																$/AC
10 FT	11800	100	12.29	2.36	14.65	14.65	2.20	16.85	14.65			38.28	5.74	44.02		11.01
		150	8.75	2.36	11.11	11.11	1.67	12.78	11.11	14.62	9.00	34.74	5.21	39.95	4.0	9.99
		200	6.96	2.36	9.32	9.32	1.40	10.71	9.32	55 HP		32.94	4.94	37.88	AC/HR	9.47
20-21 FT	30200	100	31.47	6.04	37.51	37.51	5.63	43.13	37.51			81.02	12.15	93.17		10.96
		150	22.40	6.04	28.44	28.44	4.27	32.70	28.44	34.51	9.00	71.95	10.79	82.74	8.5	9.73
		200	17.81	6.04	23.85	23.85	3.58	27.42	23.85	110 HP		67.36	10.10	77.46	AC/HR	9.11
28-30 FT	52500	100	54.70	10.50	65.20	65.20	9.78	74.98	65.20			119.67	17.95	137.62		11.47
		150	38.94	10.50	49.44	49.44	7.42	56.85	49.44	45.47	9.00	103.91	15.59	119.49	12.0	9.96
		200	30.95	10.50	41.45	41.45	6.22	47.67	41.45	150 HP		95.92	14.39	110.31	AC/HR	9.19
40-42 FT	69000	100	71.89	13.80	85.69	85.69	12.85	98.55	85.69			155.70	23.35	179.05		10.53
		150	51.18	13.80	64.98	64.98	9.75	74.72	64.98	61.01	9.00	134.98	20.25	155.23	17.0	9.13
		200	40.68	13.80	54.48	54.48	8.17	62.65	54.48	185 HP		124.49	18.67	143.16	AC/HR	8.42
					Average Rental Rate per Acre			4.04				Average Custom Rate per Acre				9.70

DRAWN EQUIPMENT - GRAIN

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
DRILLS																
HOE PRESS																$/AC
10 FT	17000	100	17.71	3.40	21.11	21.11	3.17	24.28	21.11			48.60	7.29	55.89		13.97
		150	12.61	3.40	16.01	16.01	2.40	18.41	16.01	18.49	9.00	43.50	6.52	50.02	4.0	12.51
		200	10.02	3.40	13.42	13.42	2.01	15.44	13.42	65 HP		40.91	6.14	47.05	AC/HR	11.76
20-21 FT	35200	100	36.68	7.04	43.72	43.72	6.56	50.27	43.72			87.23	13.08	100.31		11.80
		150	26.11	7.04	33.15	33.15	4.97	38.12	33.15	34.51	9.00	76.66	11.50	88.16	8.5	10.37
		200	20.75	7.04	27.79	27.79	4.17	31.96	27.79	110 HP		71.30	10.70	82.00	AC/HR	9.65
28-30 FT	59000	100	61.47	11.80	73.27	73.27	10.99	84.26	73.27			127.74	19.16	146.90		12.24
		150	43.76	11.80	55.56	55.56	8.33	63.89	55.56	45.47	9.00	110.03	16.50	126.53	12.0	10.54
		200	34.79	11.80	46.59	46.59	6.99	53.57	46.59	150 HP		101.05	15.16	116.21	AC/HR	9.68
40-42 FT	77700	100	80.96	15.54	96.50	96.50	14.47	110.97	96.50			166.50	24.98	191.48		11.26
		150	57.63	15.54	73.17	73.17	10.98	84.14	73.17	61.01	9.00	143.17	21.48	164.65	17.0	9.69
		200	45.81	15.54	61.35	61.35	9.20	70.55	61.35	185 HP		131.36	19.70	151.06	AC/HR	8.89
					Average Rental Rate per Acre			4.84				Average Custom Rate per Acre				10.78
DRILLS																
ZERO TILL GRAVITY DISK *																
14 - 15 FT	42300	100	44.07	8.46	52.53	52.53	7.88	60.41	52.53			96.04	14.41	110.45		20.08
		150	31.37	8.46	39.83	39.83	5.97	45.81	39.83	34.51	9.00	83.34	12.50	95.85	5.5	17.43
		200	24.94	8.46	33.40	33.40	5.01	38.41	33.40	110 HP		76.91	11.54	88.45	AC/HR	16.08
21 FT	50400	100	52.51	10.08	62.59	62.59	9.39	71.98	62.59			117.06	17.56	134.62		16.83
		150	37.38	10.08	47.46	47.46	7.12	54.58	47.46	45.47	9.00	101.93	15.29	117.22	8.0	14.65
		200	29.72	10.08	39.80	39.80	5.97	45.76	39.80	150 HP		94.26	14.14	108.40	AC/HR	13.55
28 - 30 FT	74200	100	77.31	14.84	92.15	92.15	13.82	105.97	92.15			162.16	24.32	186.48		16.95
		150	55.03	14.84	69.87	69.87	10.48	80.35	69.87	61.01	9.00	139.88	20.98	160.86	11.0	14.62
		200	43.75	14.84	58.59	58.59	8.79	67.38	58.59	185 HP		128.59	19.29	147.88	AC/HR	13.44
					Average Rental Rate per Acre			7.49				Average Custom Rate per Acre				15.57
NOTE: Work rates may require adjustment for heavy straw conditions or high fertilizer rates.																
DRILLS																$/AC
ZERO TILL GRAVITY HOE *																
21 FT	28900	100	30.11	5.78	35.89	35.89	5.38	41.27	35.89			90.36	13.55	103.91		12.99
		150	21.43	5.78	27.21	27.21	4.08	31.30	27.21	45.47	9.00	81.68	12.25	93.94	8.0	11.74
		200	17.04	5.78	22.82	22.82	3.42	26.24	22.82	150 HP		77.29	11.59	88.88	AC/HR	11.11
28-30 FT	52400	100	54.60	10.48	65.08	65.08	9.76	74.84	65.08			135.08	20.26	155.34		14.12
		150	38.86	10.48	49.34	49.34	7.40	56.74	49.34	61.01	9.00	119.35	17.90	137.25	11.0	12.48
		200	30.89	10.48	41.37	41.37	6.21	47.58	41.37	185 HP		111.38	16.71	128.09	AC/HR	11.64
35 FT	60950	100	63.50	12.19	75.69	75.69	11.35	87.05	75.69			145.70	21.86	167.56		12.89
		150	45.20	12.19	57.39	57.39	8.61	66.00	57.39	81.01	9.00	127.40	19.11	146.51	13.0	11.27
		200	35.94	12.19	48.13	48.13	7.22	55.34	48.13	185 HP		118.13	17.72	135.85	AC/HR	10.45
40-42 FT	69500	100	72.41	13.90	86.31	86.31	12.95	99.26	86.31			153.80	23.07	176.87		11.41
		150	51.55	13.90	65.45	65.45	9.82	75.26	65.45	58.49	9.00	132.94	19.94	152.88	15.5	9.86
		200	40.98	13.90	54.88	54.88	8.23	63.11	54.88	275 HP		122.37	18.36	140.72	AC/HR	9.08
					Average Rental Rate per Acre			4.75				Average Custom Rate per Acre				11.34

NOTE: Zero-till Gravity Hoe Drills are not currently being manufactured. The above prices are the last available(1996).

NOTE: Work rates may require adjustment for heavy straw conditions or high fertilizer rates.

* See introduction for the classification of Air Drills, Air Seeders and Zero Till Drills.

DRAWN EQUIPMENT - GRAIN

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
FERTILIZER SPREADERS																$/AC
6 TON	13250	60	23.74	4.97	28.71	28.71	4.31	33.01	28.71			62.80	9.42	72.22		3.01
		80	18.43	4.97	23.39	23.39	3.51	26.90	23.39	25.09	9.00	57.48	8.62	66.10	24.0	2.75
		100	15.31	4.97	20.28	20.28	3.04	23.32	20.28	85 HP		54.36	8.15	62.52	AC/HR	2.60
					Average Rental Rate per Acre			1.12				Average Custom Rate per Acre				2.75
GRAIN AUGERS, PTO																$/BU
8 IN	3230	25	13.08	1.29	14.37	14.37	2.16	16.53	14.37			33.22	4.98	38.21		0.0127
40-51 FT		50	7.19	1.29	8.48	8.48	1.27	9.75	8.48	9.85	9.00	27.33	4.10	31.43	3000.0	0.0105
		75	5.19	1.29	6.48	6.48	0.97	7.45	6.48	35 HP		25.33	3.80	29.13	BU/HR	0.0097
10 IN	6730	25	27.26	2.69	29.95	29.95	4.49	34.44	29.95			53.57	8.04	61.61		0.0103
50-60 FT		50	14.97	2.69	17.67	17.67	2.65	20.32	17.67	14.62	9.00	41.29	6.19	47.48	6000.0	0.0079
		75	10.81	2.69	13.50	13.50	2.03	15.53	13.50	55 HP		37.13	5.57	42.70	BU/HR	0.0071
												Average Custom Rate / Bushel				0.0092
GRAIN DRYERS, BATCH																
350 BUS	18400	100	18.63	1.15	19.78	19.78	2.97	22.75	19.78			54.87	8.23	63.10		0.53
17.5%-14.5%		200	10.24	1.15	11.39	11.39	1.71	13.09	11.39	26.09	9.00	46.47	6.97	53.45	120.0	0.45
		300	7.39	1.15	8.54	8.54	1.28	9.82	8.54	35 HP & propane & tank		43.63	6.54	50.17	BU/HR	0.42
					Suggested Rental Rate /Bu /1%			0.04				Suggested Custom Rate/Bushel / 1%				0.15

NOTE: Power unit costs incl. propane costs of (1) $14.80/hr(40 litres/hr x $.37/litre)(drying at 0 degrees Celsius)(2)Tank rental of $180.00/125hr =$1.44/hr
(3) 35 HP tractor costs. Propane consumption will change with temperature (48 litres/hr at - 10 degrees Celsius, 63 litres/hr at - 20 degrees Celsius).
NOTE: Batch grain dryers (round) are not currently being manufactured. The above price is the last available (1996)

GRAIN DRYERS, CONTINUOUS																
300 bus	35000	50	70.88	4.38	75.25	75.25	11.29	86.54	75.25			125.90	18.89	144.79		0.48
17.5%-14.5%		100	38.94	4.38	43.31	43.31	6.50	49.81	43.31	41.65	9.00	93.96	14.09	108.06	300.0	0.36
		200	21.08	4.38	25.46	25.46	3.82	29.28	25.46	35 HP & propane & tank		76.11	11.42	87.53	BU/HR	0.29
					Suggested Rental Rate /Bu /1%			0.06				Suggested Custom Rate/Bushel / 1%				0.12
600 bus	55000	50	111.38	6.88	118.25	118.25	17.74	135.99	118.25			177.33	26.60	203.93		0.34
17.5%-14.5%		100	61.19	6.88	68.06	68.06	10.21	78.27	68.06	50.08	9.00	127.14	19.07	146.21	600.0	0.24
		200	33.13	6.88	40.01	40.01	6.00	46.01	40.01	35 HP & propane & tank		99.09	14.86	113.95	BU/HR	0.19
					Suggested Rental Rate /Bu /1%			0.04				Suggested Custom Rate/Bushel / 1%				0.08

NOTE: 300 bu dryer: Power unit costs incl. propane costs of (1) $29.23/hr(79 litres/hr x $.37/litre)(drying at 0 degrees Celsius) (2)Tank rental of $180.00/70hr =$2.57/hr
(3) 35 HP tractor costs. Propane consumption will change with temperature (95 litres/hr at - 10 degrees Celsius, 126 litres/hr at - 20 degrees Celsius).
NOTE: 600 bu dryer: Power unit costs incl. propane costs of (1) $36.63/hr(99 litres/hr x $.37/litre)(drying at 0 degrees Celsius) (2)Tank rental of $180.00/50hr =$3.60/hr
(3) 35 HP tractor costs. Propane consumption will change with temperature (111 litres/hr at - 10 degrees Celsius, 142 litres/hr at - 20 degrees Celsius)
NOTE: New grain dryers are powered by electric motors therefore substitute electrical costs for tractor costs.

GRAIN VACS																$/BU
1000-1499	10900	25	44.15	4.36	48.51	48.51	7.28	55.78	48.51			72.13	10.82	82.95		0.07
BUS/HR		50	24.25	4.36	28.61	28.61	4.29	32.90	28.61	14.62	9.00	52.24	7.84	60.07	1250.0	0.05
		75	17.51	4.36	21.87	21.87	3.28	25.15	21.87	50 HP		45.49	6.82	52.32	BU/HR	0.04
2000-3000	13400	25	54.27	5.36	59.63	59.63	8.94	68.57	59.63			92.01	13.80	105.81		0.04
BUS/HR		50	29.82	5.36	35.18	35.18	5.28	40.45	35.18	23.38	9.00	67.55	10.13	77.69	2500.0	0.03
		75	21.53	5.36	26.89	26.89	4.03	30.92	26.89	70 HP		59.26	8.89	68.15	BU/HR	0.03
4000	14800	25	59.94	5.92	65.86	65.86	9.88	75.74	65.86			104.03	15.60	119.63		0.03
BUS/HR		50	32.93	5.92	38.85	38.85	5.83	44.68	38.85	29.17	9.00	77.02	11.55	88.57	4000.0	0.02
		75	23.77	5.92	29.69	29.69	4.45	34.15	29.69	90 HP		67.87	10.18	78.04	BU/HR	0.02
					Average Rental Rate per Bushel			0.02				Average Custom Rate per Bushel				0.03
GRANULAR HERBICIDE APPLICATORS																
CULTIVATOR MOUNT																$/AC
UP TO 40 FT	5770	60	10.34	2.16	12.50	12.50	1.88	14.38	12.50			12.50	1.88	14.38		0.67
		80	8.02	2.16	10.19	10.19	1.53	11.72	10.19			10.19	1.53	11.72	21.5	0.54
		100	6.67	2.16	8.83	8.83	1.32	10.15	8.83			8.83	1.32	10.15	AC/HR	0.47
UP TO 60 FT	7340	60	13.15	2.75	15.90	15.90	2.39	18.29	15.90			15.90	2.39	18.29		0.63
		80	10.21	2.75	12.96	12.96	1.94	14.90	12.96			12.96	1.94	14.90	29.0	0.51
		100	8.48	2.75	11.23	11.23	1.68	12.92	11.23			11.23	1.68	12.92	AC/HR	0.45
Trailer Type	11900	60	21.32	4.46	25.78	25.78	3.87	29.65	25.78			59.87	8.98	68.85		1.72
40 TO 50 FT		80	16.55	4.46	21.01	21.01	3.15	24.16	21.01	25.09	9.00	55.10	8.26	63.36	40.0	1.58
		100	13.75	4.46	18.21	18.21	2.73	20.94	18.21	85 HP		52.30	7.84	60.14	AC/HR	1.50
					Average Rental Rate per Acre			0.55				Average Custom Rate per Acre				0.88

DRAWN EQUIPMENT - GRAIN

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR	POWER UNIT COST $/HR.	LAB COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
HARROWS, STANDARD																
5 BAR TINE																$/AC
40 FT	7880	60	12.76	2.13	14.89	14.89	2.23	17.12	14.89			48.98	7.35	56.32		2.82
		100	8.21	2.13	10.34	10.34	1.55	11.89	10.34	25.09	9.00	44.43	6.66	51.09	20.0	2.55
		140	6.26	2.13	8.39	8.39	1.26	9.65	8.39	85 HP		42.48	6.37	48.85	AC/HR	2.44
50 FT	9470	60	15.34	2.56	17.89	17.89	2.68	20.58	17.89			61.40	9.21	70.62		2.82
		100	9.87	2.56	12.42	12.42	1.86	14.29	12.42	34.51	9.00	55.94	8.39	64.33	25.0	2.57
		140	7.53	2.56	10.08	10.08	1.51	11.59	10.08	110 HP		53.59	8.04	61.63	AC/HR	2.47
60 FT	10600	60	17.17	2.86	20.03	20.03	3.00	23.03	20.03			69.99	10.50	80.49		2.68
		100	11.04	2.86	13.91	13.91	2.09	15.99	13.91	40.96	9.00	63.87	9.58	73.45	30.0	2.45
		140	8.42	2.86	11.29	11.29	1.69	12.98	11.29	130 HP		61.25	9.19	70.44	AC/HR	2.35
80 FT	12900	60	20.89	3.48	24.37	24.37	3.66	28.03	24.37			78.84	11.83	90.67		2.27
		100	13.44	3.48	16.92	16.92	2.54	19.46	16.92	45.47	9.00	71.39	10.71	82.10	40.0	2.05
		140	10.25	3.48	13.73	13.73	2.06	15.79	13.73	150 HP		68.20	10.23	78.43	AC/HR	1.96
					Average Rental Rate per Acre			0.55				Average Custom Rate per Acre				2.41
HARROWS, HEAVY																
50 FT	21100	60	34.17	5.70	39.87	39.87	5.98	45.85	39.87			109.87	16.48	126.35		2.53
		100	21.98	5.70	27.68	27.68	4.15	31.83	27.68	61.01	9.00	97.69	14.65	112.34	50.0	2.25
		140	16.77	5.70	22.46	22.46	3.37	25.83	22.46	185 HP		92.47	13.87	106.34	AC/HR	2.13
70 FT	24900	60	40.32	6.72	47.05	47.05	7.06	54.11	47.05			114.54	17.18	131.72		1.88
		100	25.94	6.72	32.67	32.67	4.90	37.57	32.67	58.49	9.00	100.16	15.02	115.18	70.0	1.65
		140	19.79	6.72	26.51	26.51	3.98	30.49	26.51	275 HP		94.00	14.10	108.10	AC/HR	1.54
80 FT	28600	60	46.32	7.72	54.04	54.04	8.11	62.14	54.04			121.53	18.23	139.76		1.75
		100	29.80	7.72	37.52	37.52	5.63	43.15	37.52	58.49	9.00	105.01	15.75	120.76	80.0	1.51
		140	22.73	7.72	30.45	30.45	4.57	35.02	30.45	275 HP		97.94	14.69	112.63	AC/HR	1.41
					Average Rental Rate per Acre			0.57				Average Custom Rate per Acre				1.80
HARROW PACKERS																$/AC
30 FT	17400	60	28.18	4.70	32.88	32.88	4.93	37.81	32.88			76.39	11.46	87.85		5.86
		100	18.13	4.70	22.83	22.83	3.42	26.25	22.83	34.51	9.00	66.34	9.95	76.29	15.0	5.09
		140	13.83	4.70	18.52	18.52	2.78	21.30	18.52	110 HP		62.04	9.31	71.34	AC/HR	4.76
50 FT	20900	60	33.85	5.64	39.49	39.49	5.92	45.41	39.49			89.45	13.42	102.87		4.11
		100	21.78	5.64	27.42	27.42	4.11	31.53	27.42	40.96	9.00	77.38	11.61	88.99	25.0	3.56
		140	16.61	5.64	22.25	22.25	3.34	25.59	22.25	130 HP		72.22	10.83	83.05	AC/HR	3.32
60 FT	24300	60	39.35	6.56	45.91	45.91	6.89	52.80	45.91			108.08	16.21	124.29		4.14
		100	25.32	6.56	31.88	31.88	4.78	36.66	31.88	53.17	9.00	94.05	14.11	108.15	30.0	3.61
		140	19.31	6.56	25.87	25.87	3.88	29.75	25.87	170 HP		88.04	13.21	101.24	AC/HR	3.37
70 FT	26800	60	43.40	7.24	50.64	50.64	7.60	58.23	50.64			112.80	16.92	129.72		3.71
		100	27.92	7.24	35.16	35.16	5.27	40.43	35.16	53.17	9.00	97.33	14.60	111.92	35.0	3.20
		140	21.30	7.24	28.53	28.53	4.28	32.81	28.53	170 HP		90.70	13.60	104.30	AC/HR	2.98
80 FT	29600	60	47.94	7.99	55.93	55.93	8.39	64.32	55.93			125.93	18.89	144.82		3.62
		100	30.84	7.99	38.83	38.83	5.82	44.66	38.83	61.01	9.00	108.84	16.33	125.18	40.0	3.13
		140	23.52	7.99	31.51	31.51	4.73	36.24	31.51	185 HP		101.52	15.23	116.75	AC/HR	2.92
					Average Rental Rate per Acre			1.30				Average Custom Rate per Acre				3.72

DRAWN EQUIPMENT - GRAIN

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
LAND ROLLER																
40-49 FT	21200	60	34.33	5.72	40.06	40.06	6.01	46.07	40.06			90.02	13.50	103.52		4.71
		100	22.09	5.72	27.81	27.81	4.17	31.98	27.81	40.96	9.00	77.78	11.67	89.44	22.0	4.07
		140	16.85	5.72	22.57	22.57	3.39	25.96	22.57	130 HP		72.53	10.88	83.41	AC/HR	3.79
					Average Rental Rate per Acre			1.45				Average Custom Rate per Acre				4.07
PLOWS																$/AC
7.5 FT	21500	100	22.08	5.73	27.81	27.81	4.17	31.98	27.81			55.30	8.29	63.59		21.20
5-FURROW		150	15.95	5.73	21.68	21.68	3.25	24.93	21.68	18.49	9.00	49.17	7.38	56.54	3.0	18.85
		200	12.95	5.73	18.69	18.69	2.80	21.49	18.69	65 HP		46.17	6.93	53.10	AC/HR	17.70
9 FT	24300	100	24.95	6.48	31.43	31.43	4.71	36.15	31.43			69.60	10.44	80.04		22.87
6-FURROW		150	18.02	6.48	24.50	24.50	3.68	28.18	24.50	29.17	9.00	62.67	9.40	72.07	3.5	20.59
		200	14.64	6.48	21.12	21.12	3.17	24.29	21.12	95 HP		59.29	8.89	68.18	AC/HR	19.48
12 FT	33400	100	34.29	8.91	43.20	43.20	6.48	49.68	43.20			93.17	13.97	107.14		21.43
8-FURROW		150	24.77	8.91	33.68	33.68	5.05	38.73	33.68	40.96	9.00	83.64	12.55	96.19	5.0	19.24
		200	20.12	8.91	29.03	29.03	4.35	33.38	29.03	130 HP		78.99	11.85	90.84	AC/HR	18.17
18 FT	45300	100	46.51	12.08	58.59	58.59	8.79	67.38	58.59			120.76	18.11	138.87		19.84
12 FURROW		150	33.60	12.08	45.68	45.68	6.85	52.53	45.68	53.17	9.00	107.84	16.18	124.02	7.0	17.72
		200	27.29	12.08	39.37	39.37	5.91	45.27	39.37	170 HP		101.54	15.23	116.77	AC/HR	16.68
					Average Rental Rate per Acre			7.90				Average Custom Rate per Acre				19.10
ROCK PICKERS																
FORK TYPE	6070	60	13.46	1.90	15.36	15.36	2.30	17.66	15.36			38.98	5.85	44.83		
		80	10.72	1.90	12.61	12.61	1.89	14.51	12.61	14.62	9.00	36.24	5.44	41.67		
		100	9.18	1.90	11.08	11.08	1.66	12.74	11.08	55 HP		34.70	5.21	39.91		
3 PADDLE	11600	60	25.73	3.63	29.35	29.35	4.40	33.75	29.35			61.73	9.26	70.99		
HYDRAULIC		80	20.48	3.63	24.11	24.11	3.62	27.72	24.11	23.38	9.00	56.48	8.47	64.96		
		100	17.55	3.63	21.17	21.17	3.18	24.35	21.17	75 HP		53.55	8.03	61.58		
EXTRA	15500	60	34.38	4.84	39.22	39.22	5.88	45.10	39.22			71.60	10.74	82.34		
LARGE		80	27.37	4.84	32.21	32.21	4.83	37.04	32.21	23.38	9.00	64.59	9.69	74.28		
		100	23.44	4.84	28.29	28.29	4.24	32.53	28.29	75 HP		60.67	9.10	69.77		
ROCK RAKES																
12-14 FT	10400	60	23.07	3.25	26.32	26.32	3.95	30.26	26.32			53.80	8.07	61.87		
		80	18.36	3.25	21.61	21.61	3.24	24.85	21.61	18.49	9.00	49.10	7.37	56.47		
		100	15.73	3.25	18.98	18.98	2.85	21.83	18.98	65 HP		46.47	6.97	53.44		
20 FT	11800	60	26.17	3.69	29.86	29.86	4.48	34.34	29.86			57.35	8.60	65.95		
		80	20.83	3.69	24.52	24.52	3.68	28.20	24.52	18.49	9.00	52.01	7.80	59.81		
		100	17.85	3.69	21.54	21.54	3.23	24.77	21.54	65 HP		49.02	7.35	56.38		
ROCK PICKER-ROCK RAKE COMBINATION																
20-22 FT	24300	60	53.89	7.59	61.49	61.49	9.22	70.71	61.49			99.66	14.95	114.60		
HYDRAULIC		80	42.90	7.59	50.50	50.50	7.57	58.07	50.50	29.17	9.00	88.67	13.30	101.97		
		100	36.75	7.59	44.35	44.35	6.65	51.00	44.35	95 HP		82.52	12.38	94.90		

NOTE: Rock picker - rock rake combinations are not currently being manufactured. The above prices are the last available (1996).

DRAWN EQUIPMENT - GRAIN

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR	CUSTOM RATE $/HR	WORK RATE	CALC. CUSTOM RATE
RODWEEDERS																$/AC
28 FT	11500	60	19.68	2.88	22.56	22.56	3.38	25.94	22.56			60.73	9.11	69.83		4.99
		100	12.79	2.88	15.67	15.67	2.35	18.02	15.67	29.17	9.00	53.84	8.08	61.91	14.0	4.42
		140	9.90	2.88	12.77	12.77	1.92	14.69	12.77	95 HP		50.94	7.64	58.58	AC/HR	4.18
36 FT	13500	60	23.10	3.38	26.48	26.48	3.97	30.45	26.48			69.99	10.50	80.49		4.47
		100	15.02	3.38	18.39	18.39	2.76	21.15	18.39	34.51	9.00	61.91	9.29	71.19	18.0	3.96
		140	11.62	3.38	14.99	14.99	2.25	17.24	14.99	110 HP		58.50	8.78	67.28	AC/HR	3.74
48 FT	16300	60	27.89	4.08	31.97	31.97	4.80	36.76	31.97			86.44	12.97	99.40		4.14
		100	18.13	4.08	22.21	22.21	3.33	25.54	22.21	45.47	9.00	76.68	11.50	88.18	24.0	3.67
		140	14.03	4.08	18.10	18.10	2.72	20.82	18.10	150 HP		72.57	10.89	83.46	AC/HR	3.48
56 FT	21800	60	37.31	5.45	42.76	42.76	6.41	49.17	42.76			104.92	15.74	120.66		4.31
		100	24.25	5.45	29.70	29.70	4.46	34.16	29.70	53.17	9.00	91.87	13.78	105.65	28.0	3.77
		140	18.76	5.45	24.21	24.21	3.63	27.84	24.21	170 HP		86.38	12.96	99.33	AC/HR	3.55
64 FT	23800	60	40.73	5.95	46.68	46.68	7.00	53.68	46.68			116.69	17.50	134.19		4.19
		100	26.48	5.95	32.43	32.43	4.86	37.29	32.43	61.01	9.00	102.43	15.37	117.80	32.0	3.58
		140	20.48	5.95	26.43	26.43	3.96	30.40	26.43	185 HP		96.44	14.47	110.90	AC/HR	3.47
					Average Rental Rate per Acre			1.18				Average Custom Rate per Acre				3.90

Note: If equipped with mounted harrows add $0.49/AC
NOTE: Rodweeders are not currently being manufactured. The above prices are the last available (1998).

RODWEEDERS WITH MULTIPLEX OR VIBRATILLER																$/AC
28 FT	12300	60	21.05	3.08	24.12	24.12	3.62	27.74	24.12			62.29	9.34	71.64		5.12
		100	13.68	3.08	16.76	16.76	2.51	19.27	16.76	29.17	9.00	54.93	8.24	63.17	14.0	4.51
		140	10.59	3.08	13.66	13.66	2.05	15.71	13.66	95 HP		51.83	7.77	59.60	AC/HR	4.26
36 FT	15400	60	26.35	3.85	30.20	30.20	4.53	34.73	30.20			73.72	11.06	84.77		4.71
		100	17.13	3.85	20.98	20.98	3.15	24.13	20.98	34.51	9.00	64.49	9.67	74.17	18.0	4.12
		140	13.25	3.85	17.10	17.10	2.57	19.67	17.10	110 HP		60.61	9.09	69.71	AC/HR	3.87
48 FT	17600	60	30.12	4.40	34.52	34.52	5.18	39.70	34.52			88.99	13.35	102.34		4.26
		100	19.58	4.40	23.98	23.98	3.60	27.58	23.98	45.47	9.00	78.45	11.77	90.22	24.0	3.76
		140	15.15	4.40	19.55	19.55	2.93	22.48	19.55	150 HP		74.01	11.10	85.12	AC/HR	3.55
56 FT	23400	60	40.04	5.85	45.89	45.89	6.88	52.78	45.89			108.06	16.21	124.27		4.44
		100	26.03	5.85	31.88	31.88	4.78	36.66	31.88	53.17	9.00	94.05	14.11	108.16	28.0	3.86
		140	20.14	5.85	25.99	25.99	3.90	29.89	25.99	170 HP		88.15	13.22	101.38	AC/HR	3.62
64 FT	26500	60	45.35	6.63	51.97	51.97	7.80	59.77	51.97			121.98	18.30	140.28		4.38
		100	29.48	6.63	36.11	36.11	5.42	41.52	36.11	61.01	9.00	106.11	15.92	122.03	32.0	3.81
		140	22.81	6.63	29.43	29.43	4.41	33.84	29.43	185 HP		99.44	14.92	114.35	AC/HR	3.57
					Average Rental Rate per Acre			1.29				Average Custom Rate per Acre				4.01

Note: If equipped with mounted harrows add $0.49/AC
NOTE: Rodweeders are not currently being manufactured. The above prices are the last available (1998).

DRAWN EQUIPMENT - GRAIN

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
SPRAYERS PTO																$/AC
400-500 GAL	18900	30	64.69	9.77	74.45	74.45	11.17	85.62	74.45			101.94	15.29	117.23		4.34
60-70 FT		60	36.39	9.77	46.16	46.16	6.92	53.08	46.16	18.49	9.00	73.65	11.05	84.69	27.0	3.14
		120	21.57	9.77	31.34	31.34	4.70	36.04	31.34	65 HP		58.82	8.82	67.65	AC/HR	2.51
700-800 GAL	26000	30	88.99	13.43	102.42	102.42	15.36	117.78	102.42			136.51	20.48	156.99		4.49
80-90 FT		60	50.07	13.43	63.50	63.50	9.52	73.02	63.50	25.09	9.00	97.59	14.64	112.22	35.0	3.21
		120	29.68	13.43	43.11	43.11	6.47	49.58	43.11	85 HP		77.20	11.58	88.78	AC/HR	2.54
700-800 GAL	29600	30	101.31	15.29	116.60	116.60	17.49	134.09	116.60			150.69	22.60	173.29		4.23
91-105 FT		60	57.00	15.29	72.29	72.29	10.84	83.13	72.29	25.09	9.00	106.38	15.96	122.34	41.0	2.98
		120	33.78	15.29	49.08	49.08	7.36	56.44	49.08	85 HP		83.17	12.47	95.64	AC/HR	2.33
					Average Rental Rate per Acre			2.03				Average Custom Rate per Acre				3.11

NOTE: Cost of foam ranges from $.03-$.25/ac.
For the cost of hauling water to the field add $0.46/acre (assumes 7.5 gal/ac., 12 mile haul & $5.00/1200 gal water cost). See Appendix A.
For the cost of hauling water to the field add $0.69/acre if the water truck driver is paid for waiting time.

SPRAYERS TRUCK MOUNT																$/AC
350 GAL	9500	30	32.51	4.91	37.42	37.42	5.61	43.04	37.42			101.00	15.15	116.15		2.58
60 FT		60	18.29	4.91	23.20	23.20	3.48	26.68	23.20	54.58	9.00	86.78	13.02	99.80	45.0	2.22
		120	10.84	4.91	15.75	15.75	2.36	18.11	15.75	3/4 TON*		79.33	11.90	91.23	AC/HR	2.03
500 GAL	12000	30	41.07	6.20	47.27	47.27	7.09	54.36	47.27			110.85	16.63	127.48		2.32
70 FT		60	23.11	6.20	29.31	29.31	4.40	33.70	29.31	54.58	9.00	92.89	13.93	106.82	55.0	1.94
		120	13.70	6.20	19.90	19.90	2.98	22.88	19.90	3/4 TON*		83.48	12.52	96.00	AC/HR	1.75
					Average Rental Rate per Acre			0.60				Average Custom Rate per Acre				2.08

NOTE: Cost of foam ranges from $.03-$.25/ac.
For the cost of hauling water to the field add $0.46/acre (assumes 7.5 gal/ac., 12 mile haul & $5.00/1200 gal water cost). See Appendix A.
For the cost of hauling water to the field add $0.69/acre if the water truck driver is paid for waiting time.
* 3/4 ton costs have been increased for use with mounted sprayers. Repairs, depreciation and fuel have been doubled to reflect costs of field operation.

SWATHERS PTO STANDARD																$/AC
20-21 FT	19300	60	33.03	5.60	38.63	38.63	5.79	44.42	38.63			62.25	9.34	71.59		7.54
		100	21.47	5.60	27.07	27.07	4.06	31.13	27.07	14.62	9.00	50.69	7.60	58.30	9.5	6.14
		140	16.61	5.60	22.21	22.21	3.33	25.54	22.21	55 HP		45.83	6.87	52.70	AC/HR	5.55
24-25 FT	20700	60	35.42	6.00	41.43	41.43	6.21	47.64	41.43			65.05	9.76	74.81		6.51
		100	23.03	6.00	29.03	29.03	4.35	33.39	29.03	14.62	9.00	52.66	7.90	60.55	11.5	5.27
		140	17.81	6.00	23.82	23.82	3.57	27.39	23.82	55 HP		47.44	7.12	54.56	AC/HR	4.74
30 FT	22000	60	37.65	6.38	44.03	44.03	6.60	50.63	44.03			71.52	10.73	82.24		5.87
		100	24.48	6.38	30.86	30.86	4.63	35.48	30.86	18.49	9.00	58.34	8.75	67.09	14.0	4.79
		140	18.93	6.38	25.31	25.31	3.80	29.11	25.31	65 HP		52.80	7.92	60.72	AC/HR	4.34
36 FT	26200	60	44.84	7.60	52.43	52.43	7.87	60.30	52.43			84.81	12.72	97.53		5.91
		100	29.15	7.60	36.75	36.75	5.51	42.26	36.75	23.38	9.00	69.12	10.37	79.49	16.5	4.82
		140	22.55	7.60	30.15	30.15	4.52	34.67	30.15	75 HP		62.52	9.38	71.90	AC/HR	4.36
					Average Rental Rate per Acre			2.82				Average Custom Rate per Acre				5.25

NOTE: To include a hay conditioner add $14.23/hour to the custom rate per hour and divide by the number of acres/hour

SWATH ROLLER																
8 FT	920	60	1.57	0.14	1.71	1.71	0.26	1.97	1.71			1.71	0.26	1.97		0.15
		100	1.02	0.14	1.16	1.16	0.17	1.34	1.16			1.16	0.17	1.34	13.0	0.10
		140	0.79	0.14	0.93	0.93	0.14	1.07	0.93			0.93	0.14	1.07		0.08
					Average Rental Rate per Acre			0.10				Average Custom Rate per Acre				0.10

DRAWN EQUIPMENT- LIVESTOCK AND FORAGE

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC CUSTOM RATE
BALE MOVERS LARGE ROUND																
5 BALES	10800	40	30.60	3.38	33.97	33.97	5.10	39.07	33.97			57.60	8.64	66.23		
		80	17.04	3.38	20.42	20.42	3.06	23.48	20.42	14.62	9.00	44.04	6.61	50.65		
		120	12.33	3.38	15.70	15.70	2.36	18.06	15.70	55 HP		39.33	5.90	45.22		
7-8 BALES	11900	40	33.71	3.72	37.43	37.43	5.61	43.05	37.43			64.92	9.74	74.66		
		80	18.78	3.72	22.50	22.50	3.37	25.87	22.50	18.49	9.00	49.99	7.50	57.48		
		120	13.58	3.72	17.30	17.30	2.60	19.90	17.30	65 HP		44.79	6.72	51.51		
12-14 BALE	19400	40	54.96	6.06	61.02	61.02	9.15	70.18	61.02			104.53	15.68	120.21		
		80	30.62	6.06	36.68	36.68	5.50	42.18	36.68	34.51	9.00	80.19	12.03	92.22		
		120	22.14	6.06	28.21	28.21	4.23	32.44	28.21	110 HP		71.72	10.76	82.47		
BALE PROCESSORS																
4X5 FT TO	16600	100	20.96	5.19	26.15	26.15	3.92	30.07	26.15			76.11	11.42	87.53		
6X6 FT		200	11.72	5.19	16.91	16.91	2.54	19.45	16.91	40.96	9.00	66.88	10.03	76.91		
		300	8.69	5.19	13.88	13.88	2.08	15.96	13.88	130 HP		63.85	9.58	73.42		
BALERS, LARGE ROUND (excluding twine)																$/BALE
UNDER	19000	30	71.77	4.75	76.52	76.52	11.48	88.00	76.52			104.01	15.60	119.61		7.04
55 cu. ft.		60	39.98	4.75	44.73	44.73	6.71	51.44	44.73	18.49	9.00	72.22	10.83	83.05	17.0	4.89
4X4 FT		90	28.91	4.75	33.66	33.66	5.05	38.71	33.66	65 HP		61.15	9.17	70.33	BLS/H	4.14
55-89 cu ft	26700	30	100.85	6.68	107.53	107.53	16.13	123.66	107.53			139.91	20.99	160.89		10.73
4X5 FT		60	56.18	6.68	62.86	62.86	9.43	72.28	62.86	23.38	9.00	95.23	14.29	109.52	15.0	7.30
or 4X6 FT		90	40.63	6.68	47.31	47.31	7.10	54.40	47.31	75 HP		79.69	11.95	91.64	BLS/H	6.11
90-124 cuft	32900	30	124.27	8.23	132.50	132.50	19.87	152.37	132.50			166.59	24.99	191.57		15.96
5X6 FT		60	69.23	8.23	77.45	77.45	11.62	89.07	77.45	25.09	9.00	111.54	16.73	128.27	12.0	10.69
		90	50.07	8.23	58.29	58.29	8.74	67.04	58.29	85 HP		92.38	13.86	106.24	BLS/H	8.85

Note: For the cost of twine add $.18/bale for 4' diameter, $.26/bale for 5' diameter and $.45/bale for 6' diameter
NOTE: For the mesh wrap option, add $4500 for the additional capital cost. For the cost of mesh add $2.10/bale on average.

BALERS, STANDARD (excluding twine) (bale chamber, width X height)																$/BALE
LESS 2 SQ	21600	40	68.18	5.40	73.58	73.58	11.04	84.61	73.58			101.06	15.16	116.22		0.66
(14x18 inch)		80	38.14	5.40	43.54	43.54	6.53	50.07	43.54	18.49	9.00	71.03	10.65	81.68	175.0	0.47
		120	28.28	5.40	33.68	33.68	5.05	38.74	33.68	65 HP		61.17	9.18	70.35	BLS/H	0.40
2 - 4 SQ FT	29700	40	93.74	7.43	101.17	101.17	15.17	116.34	101.17			135.25	20.29	155.54		0.89
(16x18 inch)		80	52.44	7.43	59.86	59.86	8.98	68.84	59.86	25.09	9.00	93.95	14.09	108.04	175.0	0.62
		120	38.89	7.43	46.32	46.32	6.95	53.26	46.32	85 HP		80.40	12.06	92.46	BLS/H	0.53
Note: For the cost of twine add $.02/bale																
BALE WAGONS PULL TYPE																$/BALE
83 BALE	27800	60	47.57	8.06	55.64	55.64	8.35	8.35	55.64			83.12	12.47	95.59		0.68
		100	30.93	8.06	38.99	38.99	5.85	44.84	38.99	18.49	9.00	66.48	9.97	76.45	140.0	0.55
		140	23.92	8.06	31.99	31.99	4.80	36.78	31.99	65 HP		59.47	8.92	68.39	BLS/H	0.49
104 BALE	44000	60	75.30	12.76	88.06	88.06	13.21	101.27	88.06			122.15	18.32	140.47		0.68
		100	48.95	12.76	61.71	61.71	9.26	70.97	61.71	25.09	9.00	95.80	14.37	110.17	208.0	0.53
		140	37.87	12.76	50.63	50.63	7.59	58.22	50.63	85 HP		84.71	12.71	97.42	BLS/H	0.47
					Average Rental Rate per Bale			0.33						Average Custom Rate per Bale		0.54

DRAWN EQUIPMENT- LIVESTOCK AND FORAGE

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
FORAGE HARVESTERS PULL TYPE																
SMALL	27600	40	78.19	8.63	86.82	86.82	13.02	99.84	86.82			136.78	20.52	157.30		
		80	43.56	8.63	52.18	52.18	7.83	60.01	52.18	40.96	9.00	102.15	15.32	117.47		
		120	31.50	8.63	40.13	40.13	6.02	46.15	40.13	130 HP		90.09	13.51	103.60		
MEDIUM	33100	40	93.77	10.34	104.12	104.12	15.62	119.73	104.12			158.58	23.79	182.37		
		80	52.24	10.34	62.58	62.58	9.39	71.97	62.58	45.47	9.00	117.05	17.56	134.61		
		120	37.78	10.34	48.12	48.12	7.22	55.34	48.12	150 HP		102.59	15.39	117.98		
LARGE	41000	40	116.15	12.81	128.96	128.96	19.34	148.31	128.96			191.13	28.67	219.80		
		80	64.70	12.81	77.52	77.52	11.63	89.14	77.52	53.17	9.00	139.68	20.95	160.63		
		120	46.80	12.81	59.61	59.61	8.94	68.55	59.61	170 HP		121.77	18.27	140.04		
GRINDER MIXERS																
80-100 BUS	20500	100	25.27	3.28	28.55	28.55	4.28	32.83	28.55			62.63	9.40	72.03		
		200	14.48	3.28	17.76	17.76	2.66	20.42	17.76	25.09	9.00	51.85	7.78	59.62		
		300	10.74	3.28	14.02	14.02	2.10	16.12	14.02	85 HP		48.10	7.22	55.32		
120-150 BU	23500	100	28.96	3.76	32.72	32.72	4.91	37.63	32.72			76.24	11.44	87.67		
		200	16.60	3.76	20.36	20.36	3.05	23.41	20.36	34.51	9.00	63.87	9.58	73.45		
		300	12.31	3.76	16.07	16.07	2.41	18.48	16.07	110 HP		59.58	8.94	68.52		
HAY RAKES																$/AC
8.5 FT	5900	50	14.22	1.69	15.90	15.90	2.39	18.29	15.90			34.75	5.21	39.97		8.88
PARALLEL		70	10.64	1.69	12.33	12.33	1.85	14.18	12.33	9.85	9.00	31.18	4.68	35.85	4.5	7.97
BAR		90	8.72	1.69	10.41	10.41	1.56	11.97	10.41	35 HP		29.26	4.39	33.65	AC/HR	7.48
9.5 FT	7100	50	17.11	2.03	19.14	19.14	2.87	22.01	19.14			37.99	5.70	43.68		8.74
PARALLEL		70	12.81	2.03	14.83	14.83	2.23	17.06	14.83	9.85	9.00	33.68	5.05	38.74	5.0	7.75
BAR		90	10.50	2.03	12.53	12.53	1.88	14.41	12.53	35 HP		31.38	4.71	36.08	AC/HR	7.22
15 FT	7860	50	18.94	2.25	21.19	21.19	3.18	24.36	21.19			40.04	6.01	46.04		5.42
WHEEL		70	14.18	2.25	16.42	16.42	2.46	18.89	16.42	9.85	9.00	35.27	5.29	40.56	8.5	4.77
TYPE		90	11.62	2.25	13.87	13.87	2.08	15.95	13.87	35 HP		32.72	4.91	37.62	AC/HR	4.43
21 FT	8390	50	20.22	2.40	22.61	22.61	3.39	26.01	22.61			44.43	6.66	51.10		4.26
WHEEL		70	15.13	2.40	17.53	17.53	2.63	20.16	17.53	12.82	9.00	39.35	5.90	45.25	12.0	3.77
TWIN		90	12.40	2.40	14.80	14.80	2.22	17.02	14.80	45 HP		36.62	5.49	42.11	AC/HR	3.51
					Average Rental Rate per Acre			2.62						Average Custom Rate per Acre		6.06

DRAWN EQUIPMENT- LIVESTOCK AND FORAGE

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
MANURE SPREADERS																
70-139	8640	60	19.16	2.70	21.86	21.86	3.28	25.14	21.86			45.49	6.82	52.31		
CUBIC FT.		80	15.26	2.70	17.96	17.96	2.69	20.65	17.96	14.62	9.00	41.58	6.24	47.82		
LEVEL		100	13.07	2.70	15.77	15.77	2.37	18.13	15.77	55 HP		39.39	5.91	45.30		
140-199	12000	60	26.61	3.75	30.36	30.36	4.55	34.92	30.36			53.99	8.10	62.09		
CUBIC FT.		80	21.19	3.75	24.94	24.94	3.74	28.68	24.94	14.62	9.00	48.56	7.28	55.85		
LEVEL		100	18.15	3.75	21.90	21.90	3.29	25.19	21.90	55 HP		45.52	6.83	52.35		
200-249	13800	60	30.61	4.31	34.92	34.92	5.24	40.16	34.92			62.41	9.36	71.77		
CUBIC FT.		80	24.37	4.31	28.68	28.68	4.30	32.98	28.68	18.49	9.00	56.17	8.42	64.59		
LEVEL		100	20.87	4.31	25.19	25.19	3.78	28.96	25.19	65 HP		52.67	7.90	60.57		
250-350	16500	60	36.59	5.16	41.75	41.75	6.26	48.01	41.75			74.13	11.12	85.25		
CUBIC FT.		80	29.13	5.16	34.29	34.29	5.14	39.43	34.29	23.38	9.00	66.67	10.00	76.67		
LEVEL		100	24.96	5.16	30.11	30.11	4.52	34.63	30.11	75 HP		62.49	9.37	71.86		
MANURE SPREADERS LIQUID																
800-1299	13400	120	14.86	2.39	17.25	17.25	2.59	19.84	17.25			49.63	7.44	57.07		
GAL		140	13.52	2.39	15.91	15.91	2.39	18.30	15.91	23.38	9.00	48.29	7.24	55.53		
		160	12.67	2.39	15.06	15.06	2.26	17.32	15.06	75 HP		47.44	7.12	54.55		
1300-1899	15800	120	17.52	2.82	20.34	20.34	3.05	23.39	20.34			52.72	7.91	60.63		
GAL		140	15.94	2.82	18.76	18.76	2.81	21.58	18.76	23.38	9.00	51.14	7.67	58.81		
		160	14.94	2.82	17.76	17.76	2.66	20.42	17.76	75 HP		50.14	7.52	57.66		
MOWER CONDITIONERS (Haybine)																$/AC.
9 FT	18300	50	44.10	6.54	50.63	50.63	7.59	58.23	50.63			72.45	10.87	83.32		18.51
		70	33.01	6.54	39.54	39.54	5.93	45.47	39.54	12.82	9.00	61.36	9.20	70.56	4.5	15.68
		90	27.06	6.54	33.59	33.59	5.04	38.63	33.59	45 HP		55.41	8.31	63.72	AC/HR	14.16
12 FT	28300	50	68.19	10.11	78.30	78.30	11.74	90.04	78.30			100.12	15.02	115.13		19.19
		70	51.04	10.11	61.15	61.15	9.17	70.32	61.15	12.82	9.00	82.97	12.44	95.41	6.0	15.90
		90	41.84	10.11	51.95	51.95	7.79	59.74	51.95	45 HP		73.77	11.07	84.83	AC/HR	14.14
14 FT	31000	50	74.70	11.07	85.77	85.77	12.87	98.63	85.77			109.39	16.41	125.80		17.97
		70	55.91	11.07	66.98	66.98	10.05	77.03	66.98	14.62	9.00	90.61	13.59	104.20	7.0	14.89
		90	45.83	11.07	56.91	56.91	8.54	65.44	56.91	55 HP		80.53	12.08	92.61	AC/HR	13.23
16 FT	32800	50	79.04	11.71	90.75	90.75	13.61	104.36	90.75			114.37	17.16	131.53		16.44
		70	59.16	11.71	70.87	70.87	10.63	81.50	70.87	14.62	9.00	94.50	14.17	108.67	8.0	13.58
		90	48.50	11.71	60.21	60.21	9.03	69.24	60.21	55 HP		83.83	12.58	96.41	AC/HR	12.05
					Average Rental Rate per Acre			10.75						Average Custom Rate per Acre		15.01

DRAWN EQUIPMENT- LIVESTOCK AND FORAGE

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC. CUSTOM RATE
MOWERS																$/AC
SICKLE, TRAILING																
7 FT	6550	50	15.78	2.34	18.12	18.12	2.72	20.84	18.12			36.97	5.55	42.52		12.15
		70	11.81	2.34	14.15	14.15	2.12	16.28	14.15	9.85	9.00	33.00	4.95	37.95	3.5	10.84
		90	9.68	2.34	12.02	12.02	1.80	13.83	12.02	35 HP		30.87	4.63	35.50	AC/HR	10.14
9 FT	6960	50	16.77	2.49	19.26	19.26	2.89	22.15	19.26			38.11	5.72	43.82		9.74
		70	12.55	2.49	15.04	15.04	2.26	17.29	15.04	9.85	9.00	33.89	5.08	38.97	4.5	8.66
		90	10.29	2.49	12.78	12.78	1.92	14.69	12.78	35 HP		31.63	4.74	36.37	AC/HR	8.08
					Average Rental Rate per Acre			4.25						Average Custom Rate per Acre		9.75
POST POUNDERS																
450 LB	4640	80	7.72	0.79	8.51	8.51	1.28	9.78	8.51			32.13	4.82	36.95		
HAMMER		100	6.55	0.79	7.34	7.34	1.10	8.44	7.34	14.62	9.00	30.97	4.65	35.61		
		200	5.85	0.79	6.64	6.64	1.00	7.63	6.64	55 HP		30.26	4.54	34.80		
ROTARY CUTTERS																
6 FT	3150	50	7.59	1.13	8.72	8.72	1.31	10.02	8.72			32.34	4.85	37.19		
3PH		70	5.88	1.13	6.81	6.81	1.02	7.83	6.81	14.62	9.00	30.43	4.56	34.99		
		90	4.66	1.13	5.78	5.78	0.87	6.65	5.78	55 HP		29.41	4.41	33.82		
6-7 FT HD	5090	50	12.26	1.82	14.08	14.08	2.11	16.20	14.08			37.71	5.66	43.36		
TRAILING		70	9.18	1.82	11.00	11.00	1.65	12.65	11.00	14.62	9.00	34.62	5.19	39.82		
		90	7.53	1.82	9.34	9.34	1.40	10.75	9.34	55 HP		32.97	4.95	37.91		
10 FT	10500	50	25.30	3.75	29.05	29.05	4.36	33.41	29.05			56.54	8.48	65.02		
TRAILING		70	18.94	3.75	22.69	22.69	3.40	26.09	22.69	18.49	9.00	50.18	7.53	57.70		
		90	15.52	3.75	19.27	19.27	2.89	22.17	19.27	65 HP		46.76	7.01	53.78		
15 FT	16000	50	38.55	5.71	44.27	44.27	6.64	50.91	44.27			76.65	11.50	88.14		
TRAILING		70	28.86	5.71	34.57	34.57	5.19	39.76	34.57	23.38	9.00	66.95	10.04	76.99		
		90	23.66	5.71	29.37	29.37	4.41	33.78	29.37	75 HP		61.75	9.26	71.01		
TRAILERS, LIVESTOCK																
16 FT	6590	100	7.77	0.88	8.65	8.65	1.30	9.95	8.65			48.04	7.21	55.24		
BUMPER		150	5.55	0.88	6.43	6.43	0.96	7.39	6.43	30.39	9.00	45.81	6.87	52.68		
		200	4.38	0.88	5.26	5.26	0.79	6.05	5.26	3/4 TON		44.65	6.70	51.35		
16 FT	7880	100	9.29	1.05	10.34	10.34	1.55	11.89	10.34			49.73	7.46	57.19		
GOOSENECK		150	6.63	1.05	7.68	7.68	1.15	8.84	7.68	30.39	9.00	47.07	7.06	54.13		
		200	5.24	1.05	6.29	6.29	0.94	7.24	6.29	3/4 TON		45.68	6.85	52.53		
TUB GRINDERS																
8 TON	35400	100	44.69	5.66	50.36	50.36	7.55	57.91	50.36			93.87	14.08	107.95		
		200	25.00	5.66	30.67	30.67	4.60	35.27	30.67	34.51	9.00	74.18	11.13	85.30		
		300	18.54	5.66	24.21	24.21	3.63	27.84	24.21	110 HP		67.72	10.16	77.87		

DRAWN EQUIPMENT- MISCELLANEOUS

			MACHINE COSTS PER HOUR			MACHINE RENTAL PER HOUR			CUSTOM WORK RATES							
MACHINE SIZE	ORIG. COST	ANN. HRS. OF USE	FIXED COST $/HR.	REPAIR COST $/HR.	TOTAL COST NO LABOUR $/HR.	BASIC RENTAL COST $/HR.	MARGIN $/HR.	RENTAL RATE /HR.	TOTAL MACHINE COSTS $/HR.	POWER UNIT COST $/HR.	LAB. COST $/HR.	BASIC CUSTOM WORK RATES $/HR.	MARGIN $/HR.	CUSTOM RATE $/HR.	WORK RATE	CALC CUSTOM RATE
FRONT-END LOADERS																
FOR 50-100	6380	80	8.57	1.28	9.85	9.85	1.48	11.33	9.85			42.23	6.33	48.56		
HP.TRACTOR		100	7.10	1.28	8.37	8.37	1.26	9.63	8.37	23.38	9.00	40.75	6.11	46.86		
W/BUCKET		120	6.14	1.28	7.42	7.42	1.11	8.53	7.42	75 HP		39.80	5.97	45.77		
FOR 70-140	8100	80	10.88	1.62	12.50	12.50	1.88	14.38	12.50			50.67	7.60	58.28		
HP.TRACTOR		100	9.01	1.62	10.63	10.63	1.59	12.23	10.63	29.17	9.00	48.80	7.32	56.12		
W/BUCKET		120	7.80	1.62	9.42	9.42	1.41	10.83	9.42	95 HP		47.59	7.14	54.73		
FOR 130 +	10000	80	13.44	2.00	15.44	15.44	2.32	17.75	15.44			69.91	10.49	80.39		
HP.TRACTOR		100	11.13	2.00	13.13	13.13	1.97	15.09	13.13	45.47	9.00	67.59	10.14	77.73		
W/BUCKET		120	9.63	2.00	11.63	11.63	1.74	13.37	11.63	150 HP		66.10	9.91	76.01		
SCRAPERS																
5.5-6.5	15100	60	33.49	4.72	38.21	38.21	5.73	43.94	38.21			92.68	13.90	106.58		
YARD		80	26.66	4.72	31.38	31.38	4.71	36.09	31.38	45.47	9.00	85.85	12.88	98.73		
		100	22.84	4.72	27.56	27.56	4.13	31.69	27.56	150 HP		82.03	12.30	94.33		
8.5 YARD	22400	60	49.68	7.00	56.68	56.68	8.50	65.18	56.68			118.85	17.83	136.67		
		80	39.55	7.00	46.55	46.55	6.98	53.53	46.55	53.17	9.00	108.72	16.31	125.02		
		100	33.88	7.00	40.88	40.88	6.13	47.01	40.88	170 HP		103.05	15.46	118.50		
SNOW BLOWERS																
FRONT	15000	20	75.94	7.13	83.06	83.06	12.46	95.52	83.06			121.23	18.18	139.42		
MOUNT		40	41.72	7.13	48.84	48.84	7.33	56.17	48.84	29.17	9.00	87.01	13.05	100.07		
8 FT		100	21.19	7.13	28.31	28.31	4.25	32.56	28.31	95 HP		66.48	9.97	76.46		
REAR	3260	20	16.50	1.55	18.05	18.05	2.71	20.76	18.05			45.54	6.83	52.37		
MOUNT		40	9.07	1.55	10.62	10.62	1.59	12.21	10.62	18.49	9.00	38.10	5.72	43.82		
7 FT		100	4.60	1.55	6.15	6.15	0.92	7.08	6.15	65 HP		33.64	5.05	38.69		
REAR	4240	20	21.47	2.01	23.48	23.48	3.52	27.00	23.48			50.97	7.64	58.61		
MOUNT		40	11.79	2.01	13.81	13.81	2.07	15.88	13.81	18.49	9.00	41.29	6.19	47.49		
8 FT		100	5.99	2.01	8.00	8.00	1.20	9.20	8.00	65 HP		35.49	5.32	40.81		

APPENDIX A

Custom Grain and Hay Hauling

A. Hauling Grain from the Farm to Market

a. Truck - 3 ton, 350 bushel: excluding labour costs $78.49 /hour
b. Auger - 7 inch, 40 ft, w/gas engine excluding labour costs $11.99 /hour
c. The labour rate is $9.00 /hour
d. Unload time: 10 minutes at elevator (truck engine and PTO running 5 minutes).

	3	6	9	12
Auger Costs per Load	$4.00	$4.00	$4.00	$4.00
Time in minutes	20	20	20	20
Truck Costs per Load	$22.24	$34.01	$45.79	$56.25
Time in minutes (incl. 5 min. unload time)	17	26	35	43
Labour Costs per Load	$6.30	$7.65	$9.00	$10.20
Total time in minutes	42	51	60	68
Total Cost per Load	$32.54	$45.66	$58.78	$70.45
Margin per Load (15%)	$4.88	$6.85	$8.82	$10.57
Custom Rate per Load (350 bu.)	$37.42	$52.51	$67.60	$81.02
Custom Rate per Bushel	$0.11	$0.15	$0.19	$0.23

The calculated custom rate is $0.11 /bushel for the first 3 miles plus $0.014 per bushel for each additional mile.

B. Hauling Seed to the Field

Assume
1. seeding 160 acres with 30' air seeder (12 hours)
2. 3 ton truck costs $78.49 /hour
3. truck running time includes - loading 5 minutes equals 0.08 hours
   - driving to and from field 15 min. equals 0.25 hours
   - running time in field 12 hrs.X 20% equal 2.40 hours
   2.73 hours

The Truck Cost for 160 acres is $78.49 /hour X 2.73 hours equals $214.28
The Trucking Cost per acre is $214.28 /160 ac = $1.34 per acre.

If one truck is used for fertilizer and one truck is used for seed then double the trucking cost per acre.

APPENDIX A

C. Hauling Grain from the Field to Yard

a. Truck - 3 ton, 350 bushel truck excluding labour costs $78.49 /hour
b. Auger - 7 inch X 40' with gas engine excluding labour costs $11.99 /hour
c. Labour rate $9.00 /hour
d. Unload time: 11 minutes at bin (truck engine and PTO running)

(1) Time Use

Distance: Field to yard in miles	0.5	1	1.5	2	3	4
Travel Time to Yard and Return (min)	4	6.5	8.5	10	12	15
Total Unload Time at Bin (min)	11	11	11	11	11	11
Time truck running during unload (min)	5	5	5	5	5	5
Time unload twice from one combine or once from each of two combines (min)	10	10	10	10	10	10
Time per Trip Truck Running (min)	19	21.5	23.5	25	27	30
Waiting Time in Field (truck not running)						
(a) hauling from one combine (min)	47	44.5	42.5	41	39	36
(b) hauling from two combines (min)	11	8.5	6.5	5	3	0
Total Time per Trip						
(a) hauling from one combine (min)	72	72	72	72	72	72
(b) hauling from two combines (min)	36	36	36	36	36	36
(2) Component Costs per Trip						
(a) Truck Costs/Trip	$24.86	$28.13	$30.74	$32.70	$35.32	$39.25
(b) Auger Costs/Trip	$2.20	$2.20	$2.20	$2.20	$2.20	$2.20
(c) Labour Costs/Trip - one combine	$10.80	$10.80	$10.80	$10.80	$10.80	$10.80
(d) Labour Costs/Trip - two combines	$5.40	$5.40	$5.40	$5.40	$5.40	$5.40
(3) Custom Rate $/Hr.(incl. 15% margin)						
- hauling from one combine	$36.28	$39.41	$41.92	$43.80	$46.31	$50.07
- hauling from two combines	$62.20	$68.47	$73.49	$77.25	$82.26	$89.78
(4) Custom Rate $/Bus.(incl.15 % margin)						
- haul from one combine bu/hr = 300	$0.12	$0.13	$0.14	$0.15	$0.15	$0.17
- haul from two combines bu/hr 600	$0.10	$0.11	$0.12	$0.13	$0.14	$0.15

The calculated custom rate for hauling from one combine is $0.13 for the first mile and $0.012 for each additional mile.

The calculated custom rate for hauling from two combines is $0.11 for the first mile and $0.012 for each additional mile.

APPENDIX A

D. Hauling Large Round Bales from Field to Yard

The following cost calculation of hauling large round bales from the field to the yard includes the cost of a large round bale mover, tractor and labour. The large round bale mover can pick up large round bales in the field, transport them to the yard and unload them automatically.

assume
a. 8 bale large round bale mover $ 57.48 /hour custom rate
b. 60 horsepower tractor
c. Two mile haul takes 30 minutes (4 miles round trip) (16 bales per hour)
d. Six mile haul takes 60 minutes (12 mile round trip) (8 bales per hour)

Cost per bale - two mile haul $\frac{\$ 57.48}{16} = \$ 3.59$

Cost per bale - six mile haul $\frac{\$ 57.48}{8} = \$ 7.19$

assume
a. 14 bale large round bale mover $ 92.22 /hour custom rate
b. 110 horsepower tractor
c. Two mile haul takes 40 minutes (4 miles round trip) (21 bales per hour)
d. Six mile haul takes 70 minutes (12 mile round trip) (12 bales per hour)

Cost per bale - two mile haul $\frac{\$ 92.22}{21} = \$ 4.39$

Cost per bale - six mile haul $\frac{\$ 92.22}{12} = \$ 7.68$

E. Hauling Water for Field Spraying

	2.5gal/acre		5gal/acre		7.5gal/acre		10gal/acre	
	part time driver	full time driver	part time driver	full time driver	part time driver	full time driver	part time driver	full time driver
Assume								
ac sprayed per hr ave of 80-90' and 90-105'	42.0	42.0	40.0	40.0	38.0	38.0	36.0	36.0
labour cost/hr	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
3 ton truck cost per hour	78.49	78.49	78.49	78.49	78.49	78.49	78.49	78.49
truck hauls 1200 gal/load	1200	1200	1200	1200	1200	1200	1200	1200
acres per load = 1200 gal/(gal/ac)	480	480	240	240	160	160	120	120
hours per load = 1200gal/(gal/ac)/(ac/hr)	11.43	11.43	6.00	6.00	4.21	4.21	3.33	3.33
3 ton driving time going for water (min)	13.3	13.3	25.3	25.3	36.0	36.0	45.5	45.5
driving time in the field (min)	1.8	1.8	3.5	3.5	5.0	5.0	6.3	6.3
total time minutes per 160 acres (min) *	15.1	15.1	28.8	28.8	41.0	41.0	51.8	51.8
3 Ton cost for 160 acres	19.75	19.75	37.68	37.68	53.64	53.64	67.76	67.76
labour cost for 160 acres	2.27	102.86	4.32	54.00	6.15	37.89	7.77	30.00
3 Ton and labour cost for 160 acres	22.02	122.61	42.00	91.68	59.79	91.53	75.53	97.76
add 15% margin	3.30	18.39	6.30	13.75	8.97	13.73	11.33	14.66
total cost of hauling for 160 acres	25.32	141.00	48.30	105.43	68.75	105.26	86.86	112.43
cost of purch or pumping water for 160 ac **	1.85	1.85	3.50	3.50	5.00	5.00	6.30	6.30
cost per 160 acres for hauling and water	27.17	142.85	51.80	108.93	73.75	110.26	93.16	118.73
cost per acre of water hauling	0.17	0.89	0.32	0.68	0.46	0.69	0.58	0.74

* based on one load taking 41 minutes
** based on one load costing $5.00

APPENDIX A

F. High Clearance Sprayer Transportation Costs

Assume:

1. 60 Ft. sprayer does 550 ac/day; 80 ft. sprayer does 750 ac/day; 100 ft. sprayer does 1000 ac/day
2. 3 ton truck costs 100.62 $/hr
3. truck running time approx. 3 hrs/day
4. Trailer costs based on $12000 are 11.70 $/hr
5. 336.95 $/hr truck and trailer costs/ day
6. 60' sprayer 550 ac/day: $0.61 $/ac Transportation Costs
7. 80' sprayer 750 ac/day: $0.45 $/ac Transportation Costs
8. 100' sprayer 1000 ac/day: $0.34 $/ac Transportation Costs

Average: 0.47 $/ac Transportation Costs

APPENDIX B

Self Propelled Combine Classification

SIZE	AC/HR	MANUFACTURER	MODEL
Small (Class 4)	5-10 ac/hr	CaseIH	2344
		Claas	Dom 68
		Claas	Dom 78
		AgCo-Gleaner	R42
		Fiat Hesston	L3400
		Fiat Hesston	L3550
		John Deere	4435
		John Deere	9450
Medium (Class 5)	8-12 ac/hr	CaseIH	2366
		Claas	Dom 98
		AgCo-Gleaner	R52
		Fiat Hesston	L3790
		Ford New Holland	TR89
		John Deere	9550
		John Deere	9650 STS
		Massey Ferguson	8570
		White	2500
Large (Class 6&7)	10-15ac/hr	Belarus	Dom 1500
		CaseIH	2388
		Claas	COM 228-CS
		Claas	DOM 108
		Claas	DOM 116-CS
		AgCo	C62
		AgCo-Gleaner	R62
		AgCo-Gleaner	R72
		Ford New Holland	TR99
		Ford New Holland	TX 66
		Ford New Holland	TX 68
		John Deere	9650
		John Deere	9750 STS
		Massey Ferguson	8680
		Massey Ferguson	8780
		White	2600

APPENDIX C

Rental Rate Calculation Worksheet

Machine _____ Original Cash Cost $_____

Basic Rental Cost (Per Hour)

Fixed Costs: _____ x _____ = $_____/hr (A)
Rate/hr* Number of $1000 orig. cash cost

Repairs: _____ x _____ = $_____/hr (B)
Rate/hr* Number of $1000 orig. cash cost

Basic Rental Cost (A + B) = $_____/hr (C)

Rental Margin = _____ x _____ = $_____/hr (D)
Suggested rate 15% Basic Rental Costs (C)

Rental Rate Per Hour (C + D) = $_____/hr

* Refer to "Machinery Cost Calculation Guide" Appendix F, column D for fixed costs rate/hour, and column E for repair costs rate/hour.

APPENDIX D

Custom Rate Calculation Worksheet

Operation _____

Power Unit _____ Original Cash Cost $_____
Tractor, SP Machine

Machine _____ Original Cash Cost $_____
Tillage Implements, PTO Machine, Other

Power Unit Costs (Per Hour)

Fixed Costs _____ (Rate/hr*) x _____ (Number of $1000 Orig. cash cost) = $_____/hr (1)

Fuel _____ (Litre/hr) x _____ (Price/Litre) = $_____/hr (2)

Oil and Grease $.35 x _____ Hp / 100 Hp = $_____/hr (3)

Repairs** _____ (Rate/hr*) x _____ (Number of $1000 Orig. cash cost) = $_____/hr (4)

Total Costs of Power Unit (1+2+3+4) = $_____/hr (A)

Machine Costs (Per Hour)

Fixed Costs _____ (Rate/hr*) x _____ (Number of $1000 Orig. cash cost) = $_____/hr (5)

Repairs** _____ (Rate/hr*) x _____ (Number of $1000 Orig. cash cost) = $_____/hr (6)

Total Costs of Machinery (5+6) = $_____/hr (B)

Labour Cost Per Hour = $_____/hr (C)

Total Cost of Power Unit, Machine and Operator (A + B + C) = $_____/hr (D)

Margin Per Hour _____ (Suggested Rate 15%) x $_____/hr (D) = $_____/hr (E)

Custom Rate = Total Cost + Margin (D + E) = $_____/hr (F)

Work Rate (acres/hr)*** = $_____ac/hr (G)

Custom rate per acre*** (F/G) = $_____/acre

*Refer to "Machinery Cost Calculation Guide" Appendix F, Column D for fixed costs rate/hr, and column E for repair costs rate/hr.
** If you use less than original cash cost in the repair calculation you will be underestimating repair costs.
*** Where appropriate, substitute other units (bales, tons) for acres.

APPENDIX E

Formulas Used in Calculations

A. Fixed costs per hour are the sum of (i) Depreciation, (ii) Investment Costs, (iii) Insurance and Housing.

$$\text{i) Depreciation/hr} = \frac{\dfrac{\text{Original Cash Cost}^{*} - \text{Salvage Value}^{**}}{\text{Years Lifetime}}}{\text{Annual Hours Use}}$$

$$\text{ii) Investment Cost/hr} = \frac{\dfrac{\text{Original Cash Cost}^{*} + \text{Salvage Value}^{**}}{2} \times 7.5\%^{***}}{\text{Annual Hours Use}}$$

$$\text{iii) Insurance and Housing/hr} = \frac{\text{Original Cash Cost}^{*} \times 1\%}{\text{Annual Hours Use}}$$

The short cut method calculates fixed costs on an hourly basis per $1000 of original cost.

$$\frac{\text{Original Cash Cost}}{1000} \times \text{Applicable cost factor (from Appendix F, Column D)}$$

B. Repair costs are calculated on an hourly basis per $1,000 of original cost.

$$\frac{\text{Original Cash Cost}}{1000} \times \text{Applicable cost factor from Appendix F, Column E.}$$

C. Acres per hour

$$\text{Tillage Operations (82.5\% field efficiency)} = \frac{\text{Machine Width (ft)} \times \text{Speed (mph)}}{10}$$

$$\text{Seeding and Harvesting (69\% field efficiency)} = \frac{\text{Machine Width (ft)} \times \text{Speed (mph)}}{12}$$

* Original Cash Cost is the cash price you would pay for a new machine without a trade
** Salvage value is assumed to be 10% of Original Cash Cost
*** 7.5% interest rate assumes machine investment is 50% borrowed and 50% owned

APPENDIX F
Machinery Cost Calculation Guide

MACHINE	A ANNUAL USE HRS	B DEP' LIFE YRS	C AVERAGE ANNUAL REPAIR RATE % ORIG. CASH COST	D FIXED COST/ HOUR/ $1000 ORIG. CASH COST	E REPAIR COST/ HOUR/ $1000 ORIG. CASH COST
AIR DISK DRILLS	100	17		1.0419	
AIR HOE DRILLS	150	15	3	0.7417	0.2000
AIR SEEDERS	200	13.5		0.5896	
BALE MOVERS	40	14.5		2.8330	
	80	12	2.5	1.5781	0.3125
	120	10.5		1.1414	
	100	12		1.2625	
BALE PROCESSORS	200	10	3.2	0.7063	0.1600
	300	8.5		0.5238	
BALE THROWERS	40	12		3.1563	
	80	10	2	1.7656	0.2500
	120	8.5		1.3094	
BALE WAGONS, PTO	60	17.5		1.7113	
	100	15	2.9	1.1125	0.2900
	140	13		0.8606	
BALE WAGONS, SP	60	17.5		1.7113	
	100	15	2	1.1125	0.2000
	140	13		0.8606	
BALERS,	30	14.5		3.7773	
LARGE ROUND	60	12	1.5	2.1042	0.2500
	90	10.5		1.5218	
BALERS, STANDARD	40	12		3.1563	
	80	10	2	1.7656	0.2500
	120	8.5		1.3094	
COMBINES, PTO	120	13		1.0040	
	150	12	3.2	0.8417	0.2133
	180	11		0.7393	
	350	8.5		0.4489	
COMBINES, SP	120	13		1.0040	
	150	12	3.2	0.8417	0.2133
	180	11		0.7393	
	350	8.5		0.4489	
CULTIVATORS	150	17.5	CLAY-SAND	0.6845	
FIELD , H.D., WIDE BLADE	250	15	5.5	0.4450	0.2200
& ANHYDROUS AMMONIA	350	13	(3.0-8.0)	0.3442	
DISCERS &	100	17		1.0419	
DISKS, TANDEM	150	15	3	0.7417	0.2000
	200	13.5		0.5896	

APPENDIX F

Machinery Cost Calculation Guide

MACHINE	A ANNUAL USE HRS	B DEP' LIFE YRS	C AVERAGE ANNUAL REPAIR RATE % ORIG. CASH COST	D FIXED COST/ HOUR/ $1000 ORIG. CASH COST	E REPAIR COST/ HOUR/ $1000 ORIG. CASH COST
DRILLS, SEED	100	17		1.0419	
DRILLS, ZERO TILL GRAVITY	150	15	3	0.7417	0.2000
	200	13.5		0.5896	
FERTILIZER SPREADERS	60	16		1.7917	
	80	15	3	1.3906	0.3750
	100	14		1.1554	
FORAGE HARVESTERS	40	14.5		2.8330	
	80	12	2.5	1.5781	0.3125
	120	10.5		1.1414	
FRONT END LOADERS	80	16		1.3438	
	100	15	2	1.1125	0.2000
	120	14		0.9628	
GRAIN AUGERS	25	18		4.0500	
GRAIN VACS	50	15	2	2.2250	0.4000
	75	13		1.6064	
GRAIN DRYERS	100	18		1.0125	
BATCH	200	15	1.25	0.5563	0.0625
	300	13		0.4016	
GRAIN DRYERS	50	18		2.0250	
CONTINUOUS	100	15	1.25	1.1125	0.1250
	200	13		0.6024	
GRANULAR HERBICIDE	60	16		1.7917	
APPLICATORS	80	15	3	1.3906	0.3750
	100	14		1.1554	
GRINDER MIXERS	100	12.5		1.2325	
	200	10	3.2	0.7063	0.1600
	300	8.5		0.5238	
HARROWS, STANDARD	60	19.6		1.6195	
HARROWS, HEAVY	100	17	2.7	1.0419	0.2700
	140	15		0.7946	
HARROW PACKERS	60	19.6		1.6195	
	100	17	2.7	1.0419	0.2700
	140	15		0.7946	
HAY RAKES	50	13		2.4096	
	70	12	2	1.8036	0.2857
	90	11		1.4785	

APPENDIX F

Machinery Cost Calculation Guide

MACHINE	A ANNUAL USE HRS	B DEP' LIFE YRS	C AVERAGE ANNUAL REPAIR RATE % ORIG. CASH COST	D FIXED COST/ HOUR/ $1000 ORIG. CASH COST	E REPAIR COST/ HOUR/ $1000 ORIG. CASH COST
LAND ROLLERS	60	19.6		1.6195	
	100	17	2.7	1.0419	0.2700
	140	15		0.7946	
MANURE SPREADERS	60	11		2.2178	
	80	10	2.5	1.7656	0.3125
	100	9		1.5125	
MANURE SPREADERS	120	11		1.1089	
LIQUID	140	10	2.5	1.0089	0.1786
	160	9		0.9453	
MOWERS,	50	13		2.4096	
CONDITIONER	70	12	2.5	1.8036	0.3571
& SICKLE	90	11		1.4785	
PLOWS	100	17.5		1.0268	
	150	15	4	0.7417	0.2667
	200	13		0.6024	
POST POUNDERS	80	11		1.6634	
	100	10	1.7	1.4125	0.1700
	120	9		1.2604	
ROCK PICKERS	60	11		2.2178	
ROCK RAKES	80	10	2.5	1.7656	0.3125
& COMBINATIONS	100	9		1.5125	
RODWEEDERS	60	17.5		1.7113	
	100	15	2.5	1.1125	0.2500
	140	13		0.9606	
ROTARY CUTTERS	50	13		2.4096	
	70	12	2.5	1.8036	0.3571
	90	11		1.4785	
SCRAPERS	60	11		2.2178	
	80	10	2.5	1.7656	0.3125
	100	9		1.5125	
SNOW BLOWERS	20	18		5.0625	
	40	15	1.9	2.7813	0.4750
	100	10		1.4125	
SPRAYERS, PTO	30	17.5		3.4226	
SPRAYERS, TRUCK MOUNT	60	14	3.1	1.9256	0.5167
	120	10.5		1.1414	
SPRAYERS, SP	30	18		3.3750	
	60	15	3.1	1.8542	0.5167
	120	11		1.1089	

APPENDIX F
Machinery Cost Calculation Guide

MACHINE	A ANNUAL USE HRS	B DEP' LIFE YRS	C AVERAGE ANNUAL REPAIR RATE % ORIG. CASH COST	D FIXED COST/ HOUR/ $1000 ORIG. CASH COST	E REPAIR COST/ HOUR/ $1000 ORIG. CASH COST
SPRAYERS SP	200	17.5		0.5134	
HIGH CLEARANCE	300	14.3		0.3806	
	400	12.5		0.3081	
	600	11.5	5.0	0.2159	0.0833
	800	10		0.1766	
SWATHERS, PTO	60	17.5		1.7113	
	100	15	2.9	1.1125	0.2900
	140	13		0.8606	
SWATHERS, SP	60	17.5		1.7113	
	100	15	2.2	1.1125	0.2200
	140	13		0.8606	
SWATH ROLLERS	60	17.5		1.7113	
	100	15	1.5	1.1125	0.1500
	140	13		0.8606	
TRACTORS, 2WD	200	20		0.4813	
	300	16.5		0.3527	
	400	14.5		0.2833	
	600	13.0	3.1	0.2008	0.0517
	800	11.5		0.1619	
TRACTORS, 4WD	200	20		0.4813	
	300	16.5		0.3527	
	400	14.5		0.2833	
	600	13.0	2.6	0.2008	0.0433
	800	11.5		0.1619	
TRAILERS, LIVESTOCK	100	13.5		1.1792	
	150	12	2	0.8417	0.1333
	200	11		0.6653	
TRUCKS, GRAIN	100	13.5		1.1792	
	150	12	2.5	0.8417	0.1667
	200	11		0.6653	
TRUCKS, PICKUP	200	10.5		0.6848	
	250	10	3.1	0.5650	0.1240
	300	9.5		0.4866	
TUB GRINDERS	100	12		1.2625	
	200	10	3.2	0.7063	0.1600
	300	8.5		0.5238	

APPENDIX G

Factors to Consider When Custom Hiring

Custom hiring is a business arrangement. The terms of the arrangement should be written in a formal agreement. If unwritten, the terms are more likely to be misunderstood in case of a dispute. The following should be considered in a custom hiring agreement.

Timeliness

Significant losses can occur if an operation is not started or completed on time. To facilitate planning, a custom hiring agreement should include a schedule of operations for both parties. For example, when the custom combiner is picking up swathed grain, the schedule would outline time periods for swathing by the owner and combining by the custom operator. Such a schedule would be subject to weather conditions and crop maturity.

Operations

The parties should write into the agreement the exact operations to be performed by each party and the machine, materials and labour to be supplied by each.

Rate Schedule

The custom operator should stipulate the rate for each operation to be performed on the basis of acreage, time (hour, day, week) or total operation performed.

Management

A custom hiring agreement should ensure that the custom operator will employ acceptable management practices in his operations.

Terms of Payment

A custom hiring agreement should stipulate terms of payment for custom operations. As well the custom operator should bill the client upon the completion of each custom operation. The bill should indicate actual units (hours, acres, etc.) completed, the rate charged per unit, the total charge and the date payment is due.

Termination

A minimum period for notice of termination should be included in a custom hiring agreement. A penalty should be stipulated for unjustified termination within the term of the agreement.

Insurance

A custom operator may be considered differently than a farmer when insuring. It is advised that this point be clarified with the insurance company if one considers doing custom work or renting equipment.

Sample Custom Farming Agreement

Date:_____

Section A

_____, hereinafter referred to as the "custom operator", agrees to conduct the following types of machine operations on the described farm land of _____hereinafter referred to as the "owner", located at _____Saskatchewan, for the year 20_____.

Description of Machine Operation	Legal Location	Acres	Fee Per Acre
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Note: Be specific about what each machine operation includes (i.e., harvesting - does it include swathing, combining with pickup and hauling the grain to the storage facility, or straight cutting the crop and hauling the grain to the storage facility?)

Section B

The custom operator agrees to complete the said machine operations according to the following schedule:

Machine Operations	Commencement Date	Completion Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Section C

If during the term hereof, any of the goods and chattels of the custom operator are seized by any creditor, this agreement is forfeited and void.

The term owner and custom operator shall include the executors, administrators and assigns of the owner and custom operator, respectively.

Payment is due upon completion of said machine operations. Overdue accounts past 30 days subject to a 2% per month interest charge.

_____ _____

Witness Custom Operator

_____ _____

Witness Owner